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## CUTTACK DEVELOPMENT AUTHORITY ( PLANNING AND BUILDING STANDARD) REGULATION, 2024

### NOTIFICATION

The 30th January 2025

No. 778/ 27.01.2025—Where as the Draft Cuttack Development Authority (Planning And Building Standards) Regulations for Old Areas of Cuttack, 2024 has been prepared under the Section 124 of Odisha Development Authority Act, 1982 with approval of Housing & Urban Development Department, Government of Odisha vide Letter No. HUD-TP-CASEOP-0017-2023-24895, dt. 26/11/2024.

And whereas, under section 125 of Odisha Development Authority Act, 1982 all persons/ authorities likely to be affected thereby, may send their objections/suggestions addressed to the Secretary, Cuttack Development Authority before the expiry of 15 days from the date of publication of the above notification in Odisha Gazette.

And whereas, any objection/suggestion which may be received by Cuttack Development Authority in respect of the above draft regulations before the expiry of the period so specified above will be considered by Cuttack Development Authority.

**ANAM CHARAN PATRA**  
Vice Chairman  
CDA, Cuttack

# **DRAFT CUTTACK DEVELOPMENT AUTHORITY (PLANNING AND BUILDING STANDARDS) REGULATIONS FOR OLD AREAS- 2024**

## **CHAPTER-I. DEFINITIONS**

### **1. Short title, extent and commencement—**

- (1) These regulations may be called Cuttack Development Authority (Planning and Building Standards) Regulations for Old Areas - 2024.
- (2) These regulations are to be read in conjunction with Odisha Development Authorities (Planning and Building Standards) Rules- 2020 and Odisha Development Authorities (Common Application Form) Rules- 2016.
- (3) They shall extend to the Old Areas delineated as under Annexure I of these regulations.
- (4) They shall come into force on the date of their publication in the Odisha Gazette.

### **2. Definition—**

- (1) In these regulations, unless the context otherwise requires,
  - (i) **“Old Area”** means an area delineated in Annexure I of these regulations;
  - (ii) any parcel of land which is connected through a public/private means of access of width of 1.50 - 3.00 m meters
  - (iii) **“Narrow Width Plots”** means a plot having maximum 7.50 meter in width on abutting road irrespective of the depth.
  - (iv) **“Plot with Ismail access”** refers to a plot with private access road ranging from 1.50 m- 3.00 m formed due to sub-division particularly among family members (Ismail access)

## **CHAPTER –II. ADMINISTRATION**

### **3. Applicability of Regulation—**

Subject to the provisions of the Act and Rules made there under, these Regulations shall apply to.

- (i) all development, redevelopment, erection and or re-erection of a building as well as to the design, construction of, or reconstruction and additions and alterations to a building.
- (ii) all parts of the building whether removed or not, and in case of removal of whole or any part of the building;
- (iii) the remaining part of the building after demolition and work involved in demolition in case of demolition of whole or any part of a building;
- (iv) all parts of the building affected by the change in occupancy of a building; and
- (v) use of any land or building where sub-division of land is undertaken or use of land or building is changed.

#### **4. Applicability to existing buildings—**

- (1) The construction of any building in respect of which permission has been issued before coming into force of these regulations shall, so far as it is not inconsistent with the provision of these regulations regarding provision of public utility services and construction in special heritage zone, continue to be validly made and the said permission shall be deemed to have been issued under the corresponding provisions of these regulations.
- (2) Where any building has been constructed without an approved plan, the provisions of these regulations shall be insisted upon.
- (3) Wherein the building has been constructed with deviation of an approved plan, the provisions of these regulations shall be insisted upon except for the provisions related to compounding where benefit of earlier regulations under which approval given would have been extended.
- (4) For the purpose of compounding the deviation under Clause-1 the Authority may formulate a regularization scheme with the approval of the Government specifying a maximum time period of one year after publishing of the same in the Orissa Gazette, local newspaper, electronic media and website of the Government and Authority.

#### **5. Permission—**

- (1) No permission shall be required for the works specified in clause-12.4.1, Part-2 of The National Building Code of India, 2016 section 15, of the Orissa Development Authorities Act, 1982 and Rule 10 of ODA (P&BS) Rules, 2020.
- (2) No permission shall be required for the following alterations, which do not otherwise violate any provisions regarding general building requirements, structural stability, fire and health safety requirements of these rules or National Building Code of India, 2016 clause 4, Part-3.
  - (i) Raising of existing plinth of building not in consistence of regulation at own risk and cost of applicant such that it shall be so located with respect to average road level from site so that the adequate drainage of the site is assured. The height of the plinth shall not be less than 45 cm suitably to avoid waterlogging and drainage issues in the plot as well as adjoining plot and shall adhere to setbacks as per regulations enforced at time of building approval
  - (ii) Installation of medical oxygen plants in hospital premises
  - (iii) Opening and closing of a window or door or ventilator;
  - (iv) Providing intercommunication doors;
  - (v) Providing partitions;
  - (vi) Providing false ceiling;
  - (vii) Gardening;
  - (viii) Whitewashing;
  - (ix) Painting;
  - (x) Re-tiling and re-roofing;
  - (xi) Plastering and patchwork;
  - (xii) Re-flooring and

- (xiii) Construction of sunshades on one's own land.
- (3) All clarifications with respect to deficiency in the plan, documents shall be sought for from the applicant within 30 days after receipt of application.
- (4) Once the plan has been scrutinized and objections have been pointed out and intimated to the applicant, the applicant shall modify the plan to comply with the objections raised and re-submit it for further scrutiny and the Authority shall pass orders as per rules and regulations.
- (5) The Authority shall communicate either approval in Form-II or refusal in Form-III appended to the Odisha Development Authorities (Common Application Form) Rules, 2016.
- (6) If the Authority does not communicate its decision either granting or refusing permission to the applicant within 60 days from the date of receipt of the application by the Authority, the applicant shall draw the attention of the Vice-Chairman of the Authority with regard to his application, in Form-I and the Planning-Member shall within fifteen days from the date of receipt of notice in Form-I appended to the Odisha Development Authorities (Common Application Form) Rules, 2016, place the details of the case before the Vice-Chairman.
- (7) If, within a further period of one month from the date of receipt of the application drawing such attention as mentioned in sub-regulation (6), the Authority does not communicate its decision, such permission shall be deemed to have been granted to the applicant on the following the date of expiry of the three months period.
- (8) Construction proposed in all existing buildings which have been divided into parts by partition or sale or otherwise may be permitted (without insisting on front, rear or side setbacks) subject to fulfilment of following provisions, namely; -
- (i) Coverage provided for the upper floor shall not exceed 75% of the plinth area of existing floor for organizing an open terrace to facilitate light and ventilation to the habitable rooms;
- (ii) Separate arrangement shall be made for drainage of the storm water;
- (iii) Ventilators may be permitted above lintel height on production of no objection certificate from the owners of the adjacent plot to which the ventilators abuts, but no window overlooking others property may be permitted without obtaining his written consent in the shape of an affidavit.

#### **6. Restriction of permission—**

This regulation shall not be applicable in the following cases, namely —

- (1) Where construction has been undertaken on the Government land or land belonging to local body or land not owned by the person undertaking such development;
- (2) Where constructions have been undertaken over public or private road or on the alignment of any of the natural drainage channel, Municipal drain, sewerage line, electrical line, water supply network or any public utility services proposed in the Development Plan or otherwise;
- (3) Where construction has been undertaken in violation of the Ancient Monuments, and Archeological Sites and Remains (Amendment and Validation) Act, 2010;
- Provided that such constructions can be given permission if no objection certificate from the concerned authority is produced.
- (4) Where construction has been undertaken in violation to the height restrictions notified by the Airport Authority of India:

Provided that such constructions can be permitted if no objection certificate from the concerned authority is produced

- (5) Where construction has been undertaken in violation of the zoning regulations governing Environmentally sensitive zone, open space /recreational use zone or any other special land use zone as identified in the Comprehensive Development Plan
- (6) Where construction has been undertaken in violation of any norms of Eco-sensitive zone notified by Forest and Environment Department;

Provided that such constructions can be permitted if a No Objection Certificate from the concerned authority is produced;

- (7) Where construction or usage of land or building has been undertaken in violation of conditions of lease in case of leasehold land leased by Revenue and Disaster Management Department or any other public agencies.

### **CHAPTER –III**

#### **LAND USE CLASSIFICATION AND PERMISSIBLE USES**

##### **7. Zoning—**

- (1) In the Development Plan various Land Use Zones (LUZ) are indicated with their specific boundaries and these land use zones shall be regulated in accordance with the provisions of Table 1.
- (2) Except as otherwise provided, no structure or land hereinafter shall be used and no structure shall be erected, re-erected or altered unless its use is in conformity with these zoning regulations.
- (3) In cases where a layout plan of land has been approved and various plots of land under such layout have been assigned specific land uses, then the same shall be adhered to unless any such use falls under prohibited category specified in column (e) of Table 1 of that LUZ.
- (4) All places of worship, temples, churches, mosques, burial and cremation ground as existing on the date of notification of this regulation shall be exempted from being treated as non-conforming uses. Provided that continuance of such uses are not detrimental to the locality as decided by the Authority from time to time for consideration of such cases.

##### **8. Different use of land—**

- (1) Permission for different uses shall be accorded for principle uses earmarked in the different zones as described in column (c) of Table-1.
- (2) Permission for different uses described in column (d) of the Table 1 shall be accorded on special consideration by the DP&BP Committee and reasons for such considerations shall be recorded in writing and it is further provided that Authority may prescribe terms and conditions including levy of fees and charges for guidance of the committee for consideration of such cases.
- (3) The activities specified in column (e) of Table-1 shall not be permitted in the areas reserved for particular uses.
- (4) The purposes which are not specified in column (c), column (d) and column (e) of the Table-1 shall be interpreted by the DP&BP committee on basis of such analogous entries in these columns.
- (5) (1) Individual Residential Development may be permitted on recommendations of DP&BP

Committee in the open space/ recreational use zone if the following conditions are satisfied along with other conditions of these regulations, namely:-

- (i) the land is a *stitiban* land and is not a leasehold land;
- (ii) the coverage is not more than 50% and FAR of 1.0
- (iii) the height is not more than 7.0 meters excluding headroom and at least 30% of the land is used for plantation.

(2) Subject to the provision contained in Regulation (5) construction of non-high rise residential apartments/housing project may be permitted in open space /recreational use zone if the following conditions are satisfied along with other conditions of the Regulations namely.

- (i) The minimum size of the plot shall be 1 hectare or above.
- (ii) The minimum width of the approach road shall be 9.0 meter.
- (iii) The maximum coverage shall not exceed 25% of the plot area.

- (6) Mixed use of the building may be permitted in a particular zone on plot:

Provided that the principal use of the building shall cover not less than 2/3rd of the total floor area and other permitted uses shall not exceed 1/3<sup>rd</sup> of the total area;

Provided further that, for FAR over and above Base FAR, the applicant shall have the option to change the above proportion subject to minimum 1/3rd of built-up area towards principal use.

Provided further that purpose of this regulation principal use is any of the uses described in column (c) of Table 1 and the permitted use is any of the uses described in column (d) of Table 1, if so, permitted by the DP & BP Committee.

- (7) Subject to the provisions contained in Rule 20 of the Odisha Development Authorities (Planning and Building Standards) – Rules, 2020, the following provisions shall be applicable for all constructions in Special Heritage Zone earmarked in the Comprehensive Development Plan, namely: -

- a) The maximum height of the building shall not exceed 12.00 meters; and
- b) All proposals for development over an area of more than 500 sqm. or 10.00 meter height or both shall only be considered on recommendation of the DP & BP Committee with representation from Archaeological Survey of India and the Odisha State Archaeology Department.

- (8) (i) For construction of Building in Environmentally Sensitive Zone, the following provisions shall be applicable, namely.

- a) The minimum size of the plot shall be 2000.00 square meter.
- b) The minimum width of the approach road shall be 9.00 meter.
- c) The maximum coverage shall not exceed 40% of the area.
- d) The proposal for development shall only be considered on recommendation of DP & BP Committee with representatives from (1) Water Resource Department (2) Odisha State Pollution Control Board and (3) Public Health Engineering Department in the above committee.

- (ii) In case of sub divisional Layouts shall be permitted in Environmentally Sensitive Zone,(ESZ) if the following conditions are satisfied along with other conditions of these regulations, namely:—
- (a) The minimum size of the plot shall be more than 2.00 Ha;
  - b) the minimum width of approach road as required under ODA (P&BS ) Rules, 2020 shall not be less than 12.00 meter;
  - c) No relaxation on required width of approach road specified for sub divisional layouts shall be permitted;
  - d) The proposal for development shall only be considered on recommendation of DP and BP Committee with representatives from Water Resource Department, State Pollution Control Board and Public Health Engineering Department.
  - e) Notwithstanding anything to the contrary to the provisions specified in this regulation all other conditions applicable for Sub divisional layout under ODA (P&BS) Rules, 2020 shall be applicable.
- (9) Residential Density: The density in a residential area shall be guided as per the infrastructure available. The spot density for a particular plot (proposed for multi-family dwelling shall in no case exceed 400 persons per acre.
- (10) CNG/ Petrol Filling Station shall be permitted complying to the standards of Petroleum Act irrespective of land uses in Development Plan, except water bodies/forest use zone on recommendation of the DP&BP Committee if the following conditions are satisfied:
- (i) The minimum width of approach road shall be 9.00 meter.
  - (ii) It shall fulfill the Planning norms as per Rule 67 of Odisha Development Authorities (Planning and Building Standards) – Rules, 2020.
  - (iii) Submission of all clearances/ NOCs for installation of such petrol pump.
- (11) In this Regulation, the following provisions shall be followed:-

**Table 1- Land Uses Permitted/ Prohibited in different Land Use Zones**

Sr. No	Land Use Zone (LUZ)	Uses/Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/Activities Prohibited
(a)	(b)	(c)	(d)	(e)
1.	Residential Use Zone	1. All types of Residential activities 2. Hostel, Boarding and lodging houses 3. Night shelters, guest houses, Dharmashalas, 4. Services for households (salons, parlors, bakeries, sweet shops, dry cleaning, Internet kiosk, etc.) 5. Retail shopping 6. Neighborhood level social, cultural and recreational facilities with adequate parking	1. Shopping Mall & Multiplex 2. Places of entertainment, cinema halls 3. Restaurants and hotels 4. Tourism related services 5. Markets for retail goods 6. Petrol Filling Stations 7. Motor vehicle repairing workshop/ garages, 8. Colleges and research institutions 9. IT, IT enabled	1. Use/activity not compatible to the land use 2. Heavy, large and extensive industries, noxious, obnoxious and hazardous industries 3. Warehousing, storage godowns of perishables, hazardous, inflammable goods, wholesale mandis , junk yards 4. Workshops for buses 5. Slaughterhouses 6. Hospitals treating

Sr. No	Land Use Zone (LUZ)	Uses/Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/Activities Prohibited
(a)	(b)	(c)	(d)	(e)
		provisions 7. Community centers, clubs, Auditoriums 8. Marriage and community halls 9. Educational buildings (nursery, primary school, high school) 10. Health clinics, yoga centers, dispensaries 11. Library and gymnasiums 12. Exhibition and art galleries 13. Places of worship 14. Municipal, state and central Government offices 15. Outdoor and indoor games 16. Public utilities and building except service and storage yards, electrical distribution depots and water pumping stations 17. Nursery and green houses 18. Police posts/station and post offices. 19. Banks and professional offices not exceeding one floor. 20. Nursing homes and health centers (20 beds) 21. Household industries if the area for such use does not exceed one floor and there shall be no public display of the goods. 22. Bus stops, taxi stands. 3 wheeler/auto stands, rickshaw stands 23. Parks and tot-lots	services 10. Stadiums, shooting range 11. Storage of LPG cylinders 12. International conference center 13. District battalion offices 14. Burial grounds 15. Forensic science laboratory 16. Sewage treatment plants 17. Solid Waste Treatment Plant/Composting Sites 18. Water treatment plants 19. Printing presses employing not more than 10 persons 20. Godowns/warehousing of non - perishables 21. Consulates 22. Hospital 23. Public Bus depots	contagious diseases 7. Sewage disposal sites 8. Solid waste dumping grounds 9. Zoological garden, botanical garden, bird sanctuary
2.	Retail Commercial Use Zone	1. Retail. business, mercantile 2. Commercial center 3. Residential uses 4. Service garages 5. Banks and financial services and stock exchanges 6. Printing presses employing not more	1. Wholesale storage yards 2. Weigh bridge 3. Slaughterhouses 4. Sewage treatment plants 5. Solid waste treatment Plant 6. Hospital with more than 20 beds	1. Polluting industries 2. Heavy, extensive, noxious, obnoxious, hazardous and extractive industrial units 3. Hospitals/research laboratories treating contagious diseases 4. Poultry farms, dairy



Sr. No	Land Use Zone (LUZ)	Uses/Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/Activities Prohibited
(a)	(b)	(c)	(d)	(e)
		<p>than 10 persons</p> <p>7. Perishable goods markets</p> <p>8. 20 bedded hospitals</p> <p>9. Business and Professional Offices</p> <p>10. Composting Sites</p> <p>11. Private institutional offices, and semi-governmental offices</p> <p>12. Shops and shopping malls</p> <p>13. Commercial Services</p> <p>14. Colleges, Polytechnics and higher technical institutes</p> <p>15. Restaurants and hotels</p> <p>16. Sports complex and stadiums</p> <p>17. Transit homes</p> <p>18. Hostels, boarding houses, social and welfare institutions, guest houses</p> <p>19. Convenience and neighborhood shopping centers, local shopping centers, weekly and formal markets, bakeries and confectionaries</p> <p>20. Cinema halls, theaters, banquet halls, auditoriums</p> <p>21. Places of entertainment recreational uses and museums</p> <p>22. Convention centers</p> <p>23. Marriage and community halls, night shelters</p> <p>24. Public utilities, telephone exchanges</p> <p>25. Clinics and nursing homes, Hospitals</p> <p>26. Religious places</p> <p>27. Petrol Pumps</p> <p>28. Police posts/station and post offices</p> <p>29. Residential projects</p> <p>30. IT and IT enabled services</p> <p>31. Commercial institutes, research and training institutes</p>	<p>7. Agriculture uses, storage of perishable and inflammable commodities</p> <p>8. District battalion offices</p> <p>9. Sports training centers</p>	<p>farms</p> <p>5. Sewages disposal sites, solid waste dumping grounds</p> <p>6. Quarrying of gravel, sand, clay and stone</p> <p>7. Zoological gardens, botanical gardens, and bird sanctuary</p> <p>8. Use/activity not compatible to the land use</p>

Sr. No	Land Use Zone (LUZ)	Uses/Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/Activities Prohibited
(a)	(b)	(c)	(d)	(e)
		32. Parking lots, taxi stands, 3-wheeler/ auto stands, rickshaw stands 33. Picnic Hut 34. Forensic science laboratory		
3.	Wholesale Commercial Use Zone	1. Wholesale and retail business 2. Wholesale and storage buildings 3. Service centers, garages, workshops 4. Banks and financial services 5. Government and Semi Govt offices 6. Associated residential uses, residential, apartment 7. Commercial and business offices and workplaces 8. Petrol pumps and service stations on roads of 30 meter or more ROW 9. Godowns, covered storage and warehousing 10. Weigh bridges 11. Bus stops, taxi stands, 3-wheeler/auto stands, rickshaw stands 12. Parking spaces 13. Restaurants 14. Water treatment Plants 15. Public utilities 16. Police station/posts, post office	1. Truck terminal, bus depots and parking, Freight terminal 2. Warehousing, storage, godowns of perishable, inflammable goods, coal, wood, timber yards 3. Non-polluting, non-obnoxious light industries 4. Junk yards 5. Gas installation and gas works 6. Railway yards and stations, road freight stations	1. Use/ activity not compatible to the land use 2. Polluting industries 3. Large scale storage of hazardous and other inflammable materials except in areas, specifically earmarked for the purpose
4.	Industrial Use Zone	1. All kind of non-polluting industries 2. General business 3. Industrial Research institute 4. IT and ITES 5. SEZ notified by Government of India 6. Sport stadiums/playgrounds 7. Cold storage and ice factory 8. Loading, unloading spaces 9. Warehousing, storage	1. Heavy, extensive and other obnoxious hazardous industries subject to the approval of the Odisha Pollution Control Board 2. Recreational sports or centres 3. Technical Educational Institutions, Schools and colleges 4. Junkyards 5. Sewage disposal	1. Use/activity not compatible to the land use 2. Irrigated and sewage farms

Sr. No	Land Use Zone (LUZ)	Uses/Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/Activities Prohibited
(a)	(b)	(c)	(d)	(e)
		and depots of non-perishable and non-inflammable commodities 10. Gas godowns 11. Govt. semi-Govt. private business, offices 12. Wholesale business establishments 13. Banks, financial institutions and other commercial offices 14. Petrol filling station with garages and service stations 15. Bus terminals and bus depots and workshops 16. Parking, taxi stands, 3-wheeler/auto stands, rickshaw stands 17. Residential buildings for essential staff and for watch and ward 18. Public utilities 19. Agro-based industries, dairy and farming 20. Workshops garages 21. Industrial Housing 22. Museum, Hospitals and medical centers, social buildings	works, electric power plants, service stations 6. Religious buildings 7. Major oil depot and LPG refilling plants 8. Residential building in non-polluting industrial 9. Affordable housing 10. Gas installations and gas works 11. Helipads 12. Hotels, motels, guest houses	
5.	Public and Semi-public Use Zone	1. Government offices, central, state, local and semi-government, public undertaking offices 2. Residential 3. Commercial and IT services 4. Defense quarters 5. Universities and specialized educational institutions, colleges, schools, research and development centers 6. Social and welfare centers 7. Libraries 8. Hostels, transit accommodation 9. Nursery and kindergarten, welfare center 10. Retail commercial	1. Workshops for servicing and repairs 2. Processing and sale of farm products 3. Bus and Truck terminals, helipads	1. Use/activity not compatible to the land use 2. Heavy, extensive and other obnoxious, hazardous industries 3. Slaughterhouses 4. Junkyard 5. Wholesale mandies 6. Dairy and poultry farms farmhouses

Sr. No	Land Use Zone (LUZ)	Uses/Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/Activities Prohibited
(a)	(b)	(c)	(d)	(e)
		<p>including entertainment and recreational complexes</p> <p>11. Open air theatre, playground</p> <p>12. Residential club, guest house and hotels</p> <p>13. Parking areas, taxi stands, 3-wheeler/auto stands, rickshaw stands</p> <p>14. Hospitals, health centres, dispensaries and clinics</p> <p>15. Social and cultural institutes</p> <p>16. Religious buildings</p> <p>17. Conference hall</p> <p>18. Community halls, Kalyan mandap, dharamashala</p> <p>19. Museums, art galleries, exhibition halls, auditorium</p> <p>20. Police Stations, Police lines, jails</p> <p>21. Local state and Central Govt. offices uses for defense purpose</p> <p>22. Educational and research institutions</p> <p>23. Social and cultural and religious institutions</p> <p>24. Local municipal facilities</p> <p>25. Uses incidental to Govt. offices and for their use</p> <p>26. Monuments</p>		
6.	Utility and Service Use Zone	<p>1. Post offices, Telegraph offices, public-utilities and buildings</p> <p>2. Service industry</p> <p>3. Water Treatment Plant, Sewage Treatment Plant, Solid waste Treatment Plant solid waste dumping grounds</p> <p>4. Radio transmitter and wireless stations, telecommunication centers, telephone exchange</p> <p>5. Information/payment</p>	<p>1. Warehouse/storage godowns</p> <p>2. Health centre for public and staff or any other use incidental to public utilities and services</p> <p>3. Residential use</p> <p>4. Truck terminals, helipads</p> <p>5. Commercial use centre</p> <p>6. Institutional building</p>	<p>1. Use/activity not compatible to the land use</p> <p>2. Heavy, extensive and other obnoxious, hazardous industries</p>

Sr. No	Land Use Zone (LUZ)	Uses/Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/Activities Prohibited
(a)	(b)	(c)	(d)	(e)
		kiosk 6. Water supply installations 7. Sewage disposal works 8. Service stations 9. Cremation grounds and cemeteries/burial ground 10. Power plants/electrical substation 11. Radio and television station 12. Fire stations		
7.	Recreational Use Zone	1. Specialized parks/maidans for multipurpose use 2. Building and structure ancillary to use permitted in open spaces and parks such as stands for vehicles on hire, taxis, and scooter 3. Commercial use of transit nature like cinemas, circus and other shows 4. Regional parks, district parks, playgrounds, children's parks 5. Open Parking areas, Caravan parks 6. Stadiums 7. Shooting range, sports training center 8. Swimming pools 9. Botanical and Zoological Garden, bird sanctuary 10. Green belts 11. Animal racing or riding stables 12. Open air cinemas/theatre 13. Open air theater, theme parks, amphitheatres 14. Residential	1. Public assembly halls 2. Restaurants, picnic huts, holiday resorts 3. Entertainment and recreational complexes 4. Community hall, library 5. Residential club, guest house 6. Camping sites 7. Yoga and meditation centers 8. Commercial uses center 9. Special education areas 10. Institutional 11. Bus and railway passenger terminals 12. Public utilities and facilities such as police post, fire post, post and telegraph office, health center for players and staff	1. Use/activity not compatible to the land use
8.	Transportation Use Zone	1. All types of roads 2. Way side slopes and restaurants 3. Railway stations and yards 4. Airport 5. Bus stops and Bus and	1. Authorized/ Planned Vending areas 2. Incidental/ ancillary residential use 3. Emergency health care center 4. Tourism related	1. Use/activity not compatible to the land use

Sr. No	Land Use Zone (LUZ)	Uses/Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/Activities Prohibited
(a)	(b)	(c)	(d)	(e)
		Truck Terminals 6. Taxi stands, auto stands, rickshaw stands, Ferry ghats 7. Institutional Use 8. Parking areas 9. Multi-level car Parking 10. Filling stations, transport offices, booking offices 11. Night shelter, boarding houses, 12. Banks, Restaurants 13. Commercial use 14. Workshops and garages 15. Automobile spares and services, Godowns 16. Warehouses, Storage depots 17. Loading and unloading platforms(with/without cold storage. facility, weigh bridges) 18. Utility networks (drainage, sewage, power, telecommunications)	project 5. All ancillary (complimentary) uses for above categories (subject to decision of the Authority)	
9.	Agricultural and Forest Use Zone	1. Agriculture and Horticulture 2. Parks and other recreational uses 3. Dairy and poultry farming, milk chilling 4. Storage, processing and sale of farm produce 5. Agro Serving, agro processing, Agro business 6. Dwelling for the people engaged in the farm (rural settlement) 7. Farm houses and accessory buildings 8. Country Homes 9. Afforestation	1. Houses incidental to this use 2. Wayside shops and restaurants 3. Cottage industries 4. Hospital for infectious and contagious diseases, mental hospital after clearance from the Authority 5. Burial and crematorium grounds. 6. Ice factory, cold storage 7. Service industries accessory to obnoxious and hazardous industry 8. Godowns and warehouses 9. Normal expansion of land uses only in the existing homestead land 10. Soil testing lab 11. Solid waste	1. Use/activity not compatible to the land use 2. Heavy, extensive, obnoxious, noxious and hazardous industries 3. Any activity which is creating nuisance and is obnoxious in nature 4. For notified forest lands, only afforestation is permitted

Sr. No	Land Use Zone (LUZ)	Uses/Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/Activities Prohibited
(a)	(b)	(c)	(d)	(e)
			management sites, sewage disposal works 12. Electric substation 13. Quarrying of gravel, sand, clay or stone 14. Building construction over plots covered under town planning scheme and conforming uses 15. Brick kilns and extractive areas 16. Eco-tourism, camping sites, eco-parks, eco lodges, Special outdoor recreations (permissible by the Competent Authority)	
10.	Water Bodies Use Zone	1. Rivers, canals 2. Streams, water spring 3. Ponds, lakes, Reservoir 4. Wetland, Waterlogged/marshy area, aquaculture pond	1. Fisheries 2. Boating, water theme parks, water sports, lagoons, Public Projects of entertainment parks as per approved plan of Government 3. Water based resort with special by-laws 4. Any other use/activity incidental to Water	1. Use/activity not compatible to the land use
11.	Environment ally sensitive zone	1. River side green areas, River front developments 2. Scenic value areas, Theme parks, yoga parks, sports centres and community recreational areas, 3. sculpture complex, 4. lagoons and lagoon resort, 5. water sports, 6. Art academy, 7. Music pavilions 8. Media centres, 9. Food courts, 10. Parking areas, 11. visitor facilities 12. Existing village settlements, Existing residential or other uses 13. Boating, Picnic huts,	1. Hospitals and health Institutions 2. Educational technical, research institutes of higher order 3. Water Treatment Plant, Sewage Treatment Plant, Solid waste Treatment Plant solid waste dumping ground 4. Micro Composting Site 5. Apartment buildings having 100% stilt. 6. Plotted development Scheme with minimum 2Ha area 7. Development between river, stream, canal and	1. Use/activity not compatible to the land use 2. Plotted Housing 3. Small industries or small institutions

Sr. No	Land Use Zone (LUZ)	Uses/Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/Activities Prohibited
(a)	(b)	(c)	(d)	(e)
		Camping sites Special Training camps 14. Tourist and pilgrim related commercial activities, hotels and lodges 15. Non-polluting, agro-based and processing industries, Storage or Godowns for food grains	the embankment with clearance of Water Resource Department or any other competent authority 8. International convention centre 9. Kalyan Mandap 10. Resorts	

## CHAPTER –IV GENERAL

### 9. Means of access—

- (1) Every building or plot shall abut on a public or private means of access like streets, roads of duly formed of width as specified in Part-3, clause 4 of the National Building Code of India, 2016.

- (2) In no case, development of plots shall be permitted unless it is accessible by a public or private street of width not less than 4.50 meter;

In case of means of access is less than 4.50 meter, for residential development additional front setback shall be left from the plots on both the sides equally so that the width of the means of access shall be at least 4.50 meter. This is in addition to the mandatory front setback required as per the provisions of these regulations.

- (3) In case of private access road of 5-10 ft resulted by sub-division (Ismail access), the following regulations are applicable:

- (i) Minimum width of access for plot development 1.5 m (5 ft). Such means of access shall be kept free from any obstruction and shall be fully open to the sky;
- (ii) Only residential development is permitted on such plots; maximum permissible FAR is 1.0;
- (iii) No development permission shall be permitted for plots non-compliant to the above conditions.

- (4) In case of institutional, administrative, special buildings, assembly, industrial, educational & other non-residential activities, the minimum road width shall be 9.00 meter; in case of commercial uses, the minimum road width shall be 6.00 meter and in case of cinemas, game centers, multiplexes, convention centers and shopping mall; the minimum road width shall be 12.00 meter;

Mixed-use buildings may be permitted on minimum of 7.5 m wide access for plot area up to 500 sq.m; for plots above 500 sq.m up to 1000 sq.m, minimum access width required is 9.00 meters;

In case of special buildings, the DP&BP committee may relax the road width criteria and other requirements considering the site condition and requirement of such facility in the area.

- (5) In case of a private road, which gives access to one or more buildings, the owner of the said private road shall develop the road and storm water drain as required by the Local Authority and transfer the same by way of deed of gift to the Local Authority for maintenance.



- (6) In case of application for revalidation to the permission issued earlier, the provision of the width of the means of access as prescribed under earlier Regulations shall be insisted upon.

#### 10. Minimum area of plots—

The minimum area of plots for different categories of buildings in Old Area is given in the Table 2 below:

**Table 2 Category wise size of plots and minimum width of access**

Category	Minimum Road width (meter)	Minimum area of plot (square meter)
Individual Residential use	4.50	30
Kalyan Mandaps	9.00	500
Cinema, game centers, Multiplex, convention centers	12.00	2000
Social clubs and amenities	9.00	1000
Multi-storied car parking	9.00	1000
Office buildings	9.00	300
Primary/Upper Primary school	9.00	2000
High School, Residential school	9.00	6000
+2 College / Junior college	9.00	4000
Degree College	9.00	6000
Technical educational institution	9.00	10000
Petrol pumps / Filling stations	9.00	500
Restaurant	9.00	200
LPG storages	9.00	500
Places of congregation	9.00	500
Public libraries	9.00	300
Conference hall	9.00	1000
Community hall	9.00	500
Nursing homes/polyclinics/ Hospital and other clinical establishments	9.00	300
Hotels	9.00	1000
R & D Lab	9.00	1500

#### 11. Minimum setbacks for non-high-rise buildings—

- (1) The minimum setbacks permissible in a given size of plot for residential and commercial building from existing or proposed road shall be as per the Table 3 below.
- (2) The setbacks are to be left after leaving the affected area of the plot/ site, if any, for road widening.

**Table 3 Minimum setbacks for non-high-rise buildings in Old Area**

Sr. No.	Plot size	Min Front setback (meter)	Total cumulative Front and Rear Setback (meter)	Total cumulative side Setbacks (meter)
1	Up to 115 Sq.m ( $\cong$ Up to 1200 Sq.ft)	1.0	—	0.0
2	Above 115-170 Sq.m ( $\cong$ 1200-1800 Sq.ft)	1.0	1.5	0.0
3	Above 170–225 Sq.m ( $\cong$ 1800-2400 Sq.ft)	1.0	2.0	1.25
4	Above 225-300 Sq.m ( $\cong$ above 2400 Sq.ft and up to 3200 Sq.ft)	1.5	2.5	1.5
5	Above 300 sq.m and up to 500 Sq.m ( $\cong$ above 3200 Sq.ft and up to 5300 Sq.ft)	1.5	3.0	2.5
6	Above 500 sq.m-750 sq.m ( $\cong$ above 5300 Sq.ft and up to 8000 Sq.ft)	1.5	3.5	3.0
7	Above 750 sq.m. ( $\cong$ above 8000 Sq.ft)	2.0	3.5	4.0

**12. Minimum setbacks for high rise buildings—**

- (1) For non-high rise buildings, the open spaces around the building and ground coverage shall be as given in Table 4 below.
- (2) The setbacks are to be left after leaving the affected area of the plot/ site, if any, for road widening.

**Table 4 Minimum setbacks and maximum ground coverage for high rise buildings**

Sl. No	Height of the building (in meter)	Minimum Setbacks on all sides (In meter)	Maximum permissible Ground Coverage (% of total plot area)
1.	15 and up to 18	4.50	50%
2.	More than 18 & up to 40	6.00	40%
3.	More than 40	9.00	40%

Note: In case of high-rise buildings the exterior open space around a building for a width of 7.5 meter shall be kept unbuilt except where the open space requirement is less than 7.5 meter, the entire specified open space shall be kept unbuilt. It shall be constructed of hard surface capable of taking load of fire engine weighing up to 45 tons.

- (3) For institutional buildings, the minimum setback around the building shall be 3.00 meter for non-high rise building.

**13. Floor Area Ratio—**

- (1) The Floor Area Ratio (FAR) for all category of buildings shall be decided on the basis of the road width on which the plot and site abuts as specified in Table 5 below:

**Table 5 FAR for different access road widths**

Sr. no	Road width (in meters)	Base FAR	Max permissible FAR
1.	4.50 or more & less than 6.00	1.50	1.50
2.	6.00 or more & less than 9.00	2.00	2.00
3.	9.00 or more & less than 12.00	2.00	2.50
4.	12.00 or more & less than 18.00	2.00	3.00
5.	18.00 or more	2.00	4.00

- (2) For residential or commercial buildings on plot size of 170 Square meters ( $\cong$  1800 Sq.ft) or less and building height of maximum 10 meters shall be permitted without any FAR limitation:

Provided that, if the building height on such plot exceeds 10 meters, then the provisions specified in Table 5 shall be applicable.

#### 14. Development of access-restricted Plots—

- (1) In case of access-restricted plots more than 2000 sq.m, the minimum width of access to be provided by the plot owner to avail development permission is 4.5 m.

Such access, in agreement with adjoining landowner may be availed through road of minimum 4.5 m width with minimum clear height of 4.5 m. This is subject to mandated public safety and fire safety requirements, and compliance to regulations and road geometrics as per standards.

The owner/s of the plot that have provided access shall be allotted development rights up to twice the base FAR of land that has been surrendered to build such access. This FAR can be used in-situ as per Table 5 or in the form of TDR. CDA shall levy charges on the owner of the access restricted plot for providing development rights over and above the base FAR on land surrendered for provision of this access. The unit rate of such a charge would be determined as a percentage of the circle rate of such area as decided by the authority.

FAR for the access-restricted plot shall be based on the nearest major public access road provided it follows the conditions in Table 6:

**Table 6 Permissible proportion of FAR for access restricted plot development**

Length of access road	FAR permissible on plot as % of permissible FAR on fronting road
Up to 15 m	100%
30 m	85%
45	70%
60 m	55%
More than 60 m	50%

#### 15. Off Street Parking Space—

- (1) In all buildings provision shall be made for parking spaces as per the requirements as given in the Table 7 below:

**Table 7 Off Street Parking Space for Different Category of Occupancies**

Sr. No	Category of building/activity	Parking area to be provided as percentage of total built up area towards FAR.
1	Multiplexes, shopping malls, Cinema Halls, Auditorium, Stadium, Sports complex, Gymnasium	50
2	Kalyan Mandaps, Banquet Halls, convention Halls & clubs, Restaurants, local Retail shopping, Convenience Shopping , Banks, Commercial and Corporate Office, Mercantile Buildings like shops/ stores/market display and sale of mercantile either wholesale or retail stores, IT/ITES complexes, Hotels, Community Centers.	40
3	Residential Apartment buildings, Housing Project, Guest House, Dharmashalas, Hostels, Work -cum-Residence lodging, Boarding, Institutional, Industrial buildings	30
4	Storage godowns	20

(2) Total off-street parking space required as per the regulation can be provided by an individual or a group of property owners at a place not more than 500 meters; such parking spaces may be construed to have met the off-street parking requirement, subject to the approval of the Authority. The applicant/s must obtain a plot via lease or purchase and such parking plot layout with ingress and egress must be submitted for approval to the authority.

(3) Public parking (off street) may be provided with the following development incentives as listed below:

- (i) Additional FAR equivalent to twice the base FAR of the plot will be provided in lieu of development of such parking complex/ area of parking lot that can be used as TDR or bonus built up area which may be consumed within the same land conforming to maximum FAR regulations
- (ii) Relaxation of setbacks to 50% for building on plot where MLCP developed
- (iii) Only parking for 2-wheelers may be permitted on roads below 4.5 m wide

**16. General Building Requirements—** The general building requirements of a building shall be as follows, namely:

- (i) services can be permitted on roofs with adequate screening for the same;
- (ii) scissor staircase would be permitted provided all travel distance and fire norms are adhered to;
- (iii) stilts in high-rise buildings will not be restricted to height of 2.40 meters as long as it is used for parking;
- (iv) multilevel car parking with car lifts would be permitted with adequate fire safety;
- (v) buildings of height 200 meters and above, shall have provision for a Helipad.
- (vi) mezzanine floor may be permitted above any floor in all types of buildings up to an extent of one-third of the actual covered area of that floor which shall have a minimum height of 2.20 meters and all mezzanine floors shall be counted towards FAR calculation.
- (vii) The building components such as doorways, stairways, lifts, ramps, corridors and other parameters, shall be as per the norms given in Annexure-IV.

Provided that, for buildings which require fire safety certificate under the provisions of Odisha Fire Prevention and Fire Safety Regulations, 2017, as amended, from time to time, the building components such as doorways, stairways, lifts, ramps, corridors and other such parameters shall be

as per norms given in Annexure –III.

## **CHAPTER –V REQUIREMENT OF SPECIAL OCCUPANCY**

### **17. Apartment—**

- (1) In Apartment building with joint ownership of land, the owner or developer shall provide floor space for house owner's society office and assembly at the rate of one square meter per flat, provided that the minimum area shall not be less than 12 square meters.
- (2) One staircase for every 6 dwelling units or fraction thereof in a floor shall be provided.
- (3) The minimum width of approach road to the plot shall be at least 9.0 meters for Apartment buildings.
- (4) Reservation of affordable housing i.e., EWS and LIG housing shall be done as per provisions of affordable housing overlay.

## **CHAPTER –VI DEVELOPMENT AND SUB-DIVISION OF LAND REGULATIONS**

### **18. Size of the plot—**

No sub-divided plot shall be less than 30 square meters in area and the Authority shall have the right to relax the same in special cases such as Affordable Housing Schemes.

### **19. Hierarchy and Width of Roads—**

- (1) The hierarchy and width of roads in cases of sub-division layout shall be as per following extent, namely:—
  - (i) The site of sub-divisional layout shall have an access road from existing public or private pucca roads as specified in Table 8 for layout with area up to 4 Ha:

**Table 8: Minimum Road width (ROW) for Sub-division Layouts**

Sr. No.	Area for Development (In Hectare)	Minimum Right of Way (meter)
1.	Up to 1.00	6.00
2.	1.0 to 4.00	9.00

**Note:** For EWS/LIG housing scheme, the minimum road width may be relaxed by the Authority.

For layouts above 4 Ha, ODA (P&BS) rules 2020 will be applicable

- (ii) The width of the internal roads of a sub-division layout shall be as specified in Table 9 below:

**Table 9 Minimum ROW of Internal Roads**

Sl.No.	Length of Road(in Meters)	Minimum ROW (in Meters)	
		Residential	Non-residential and Mixed Use
1.	Up to 250	6.00	9.00

2.	Above 250 and up to 500	9.00	12.00
3.	Above 500	12.00	15.00

Explanation:-The length of the road shall be distance from the middle point where the roads meets the next higher roads.

- (2) In case of layout for sub-division of plot in an existing built up old area surrounded by buildings, the minimum width of access road can be relaxed by the DP&BP Committee and which can be done only in such cases where there is no possibility of widening the access road to the proposed sub-division layout to the standards as given in clause (i) of sub-rule (1) and this shall be subject to the condition that maximum FAR on the individual plots in such a layout shall be proportionately reduced.

## **20. Reservation for Affordable Housing—**

- (1) Every plot with area more than 0.4 hectare shall have reservation of land for development of housing units for EWS and LIG.
- (2) At least 10% (ten percent) of saleable residential land shall be earmarked for EWS and LIG category or as per provisions of affordable housing overlay, whichever is higher.

## **CHAPTER–VII- COMPOUNDING**

### **21. Restriction on compounding—**

- (1) Any deviation pertaining to unauthorized development shall not be compounded in the following cases, namely:—
- (i) where construction has been undertaken on Government land or land belonging to local body or land not owned by the person undertaking such development;
  - (ii) where development has been undertaken unauthorizedly within the prohibited limits of any ancient or archaeological monuments;
  - (iii) where such developments interfere with the natural drainage of the locality;
  - (iv) where such unauthorized development results in provisioning of parking below the prescribed norms; and
  - (v) where road or drain whether public or private, whether constructed or natural, has been encroached.
- (2) Subject to the provisions contained in sub-rule (1), the Authority shall have the power to determine other such circumstances where compounding shall be prohibited.
- (3) The Authority may, either before or after the institution of the proceedings under the provisions of the Act compound any offence,—
- (i) where development has been undertaken without permission, but is within the framework of use restrictions and provisions of these rules as applicable to the specific plot;
  - (ii) where deviations have been made up to 25% (twenty-five percent) beyond the permissible norms of these rules in respect of front, rear and side setbacks within the permissible FAR limits on payment of such compounding charges as may be prescribed in the regulations, from time to time.
  - (iii) where deviations have been made up to 10% (ten percent) in consumption of FAR beyond the permissible limits on payment of such charges which are equivalent to charges notified for

Purchasable FAR.

## 22. Compounding Rates—

Compounding Rates for various categories shall be as follows;

**Table 10 Compounding Fees Categories**

Sl. No.	Situations	Compounding Fee of Sq.m. (in Rupees)		
		Individual Residential Buildings	State Govt./ Central Govt. undertakings	Other class of buildings
1.	Where development has been undertaken without permission, but within the framework of use restrictions and the provisions of the Regulations applicable to concerned plot	250	25	400
2.	Where development has been undertaken in deviation to the approved plan, but within the framework of use, restrictions and the provisions of norms and stipulations of these regulations.	100	10	250
3.	Constructions up to 10% beyond the permissible norms of these Regulations with respect to front, side and rear setback and/or the deviation in FAR is within 5 percent of the permissible FAR.	1000	100	2000
4.	Constructions up to 25% beyond the permissible norms of these Regulations with respect to front, side and rear setback and/or the deviation in FAR is more than 5 percent but within ten percent of the permissible FAR.	2000	200	5000
5.	Where development has been undertaken (other than residential/industrial) the deficit parking up to 25% of the required parking.	-	-	12000

### Note-

- (1) In case of existing buildings with less than required off-street parking, the owner can obtain a plot via lease or purchase for accommodating required parking within 500.00 m distance from such building. Such parking plot layout with ingress and egress must be submitted for approval to the authority.
- (2) In case of plots with Ismail access only 2-wheeler parking shall be permitted through a signed affidavit.

## 23. Power of the Govt. to Exempt—

- (1) Notwithstanding anything containing in these regulations, the Government may compound any deviations in the construction undertaken prior to enforcement of this Regulation.
- (2) For the purpose of compounding the deviation under clause (1) the Government may formulate a regularization scheme either in respect of all types of construction or use specific construction specifying a maximum time period of 6 months after publication of the same in Odisha gazette, local newspaper,

electronic media, website of the Government and Authority.

#### **24. Removal of Unauthorized Construction—**

- (3) The secretary of the Authority shall be competent to order for Removal of any construction which in his opinion, is in violation of any of the provisions of the Act, Rules, or these Regulations, under the Act.
- (4) The Secretary of the Authority may, if he is of such opinion, seek the advice of the Vice-Chairman regarding implementation of any provision of these Regulations.
- (5) The Vice-Chairman may call for any records, and in writing, give direction to the secretary for implementation of any provision of these Regulations

### **CHAPTER –VII MISCELLANEOUS**

#### **25. Extent & Applicability—**

These regulations are to be read in conjunction with ODA(P&BS) Rules- 2020, ODA (CAF) Rules- 2016 and where no express provision has been made in respect of any matter connected with these regulations for old area the provision of ODA (P&BS) Rules 2020 shall be applied.

#### **26. Applicability of National Building Code—**

Where no express provision has been made in respect of any matter connected with planning and building standards in the Act or rules, Development Plan, Town Planning Schemes, or these Regulations or by any resolution of the Authority; then in such cases provisions of the National Building Code of India shall apply, *mutatis mutandis*, to such extent.

#### **27. Applicability of provisions to committed project—**

Where any Department of the State Government or Local Body or Statutory Authority had given any commitment for development of a project under PPP model prior to commencement of these regulations, then the building plan of such a project shall be approved as per provisions of the regulations/rules then in force under which such commitment was made, notwithstanding that these regulations has come into force.

#### **28. Decision of the Government to be final—**

In case any doubt arises with respect to interpretation of these regulation or in case of any dispute in interpretation of these regulations, the decision of the State Government shall be final.

#### **29. Relaxation by the Government—**

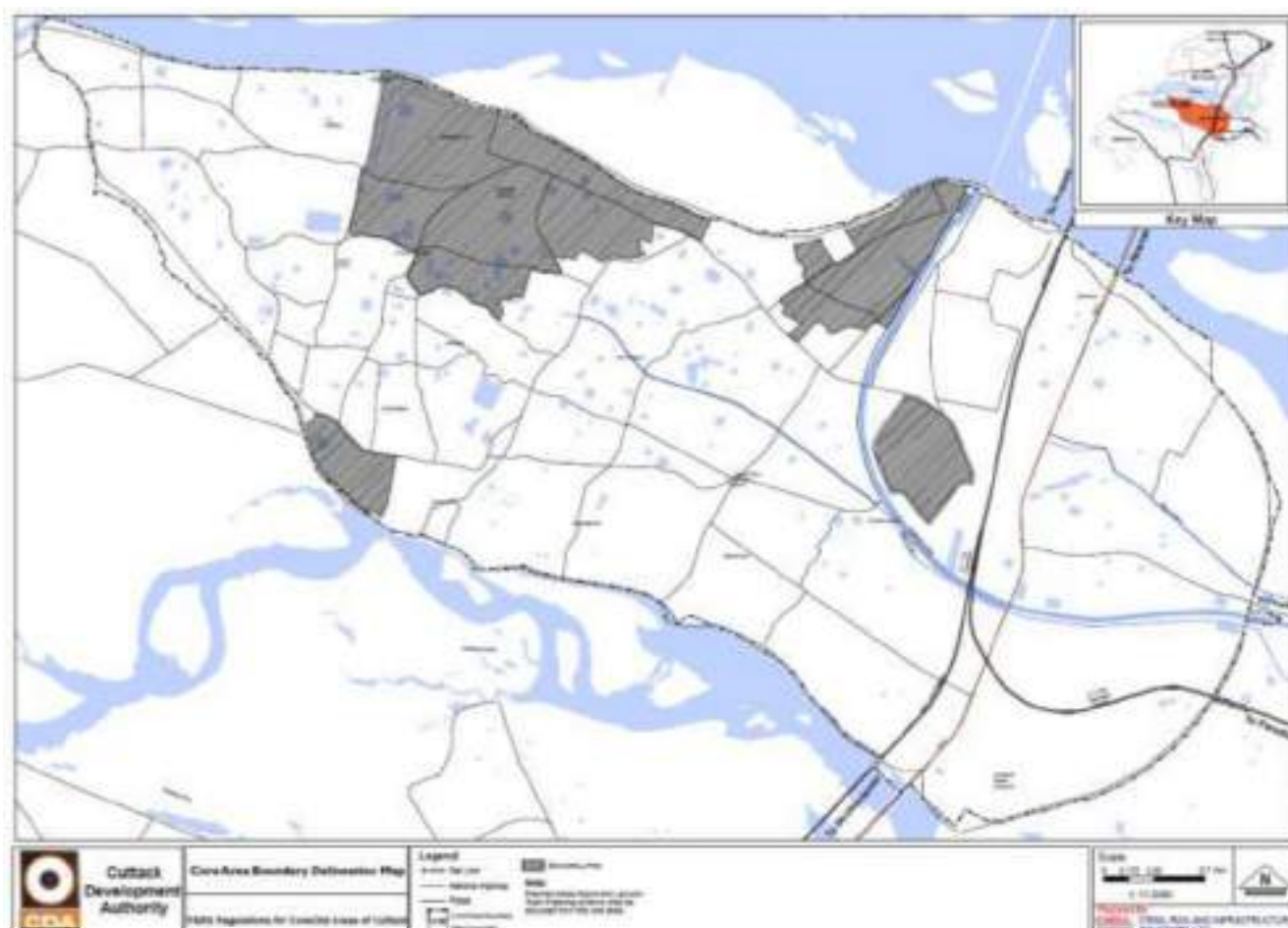
The Authority may recommend to the State Government for relaxation or modification of any of the clauses of these regulations in the general interest of the public pertaining to projects or schemes developed by the State Government or any of its agency by itself or on PPP model or for any institutional building and the decision of the State Government in this regard shall be final.

#### **30. Precedent—**

The Authority may take into consideration, the information of an applicant for a building relating to cases of relaxations granted by the Authority in the same area, zone or in similar cases while deciding the cases under this Regulation to be decided by the DP&BP committee.



# **ANNEXURE I** **Delineation of Old Area**



**Note:** Planned Areas/Approved Layouts/Town Planning Schemes shall be excluded from the Old Area

**Table 11: Delineation of Old Area**

Sr.No	Ward	Sr.No	Ward	Sr.No	Ward	Sr.No	Ward	Sr.No	Ward	Sr.No	Ward
1	7	9	15	17	23	25	31	33	39	41	47
2	8	10	16	18	24	26	32	34	40	42	52
3	9	11	17	19	25	27	33	35	41	43	53
4	10	12	18	20	26	28	34	36	42		
5	11	13	19	21	27	29	35	37	43		
6	12	14	20	22	28	30	36	38	44		
7	13	15	21	23	29	31	37	39	45		
8	14	16	22	24	30	32	38	40	46		

**Table 12 Mouza Number of Plots included under the Old Area**

Sr.No	Unit No & Mouza
1	UNIT NO-5 - DAKHINADEAULASAH

2	UNIT NO-6 - UTARDEAULASAH
3	UNIT NO-7 -UTAR TULASIPUR
4	UNIT NO-8 -DAKHINA TULASIPUR
5	UNIT NO-9 -BARABATI KILLA
6	UNIT NO-11 -ODIABAZAR
7	UNIT NO-12 -SUTAHAT
8	UNIT NO-13 -CHANDANI CHOWK
9	UNIT NO-14-NAYASADAK
10	UNIT NO-15 -CHAUDHURY BAZAR
11	UNIT NO-16 -KATHAGODASAH
12	UNIT NO-10 -CANTONMENT
13	UNIT NO-17 -MACHUABAZAR
14	UNIT NO-18 -BUXIBAZAR
15	UNIT NO-20 -MANGLABAG
16	UNIT NO-21 -RANIHAT
17	UNIT NO-22- MIRKAMALPATNA
18	UNIT NO-23 -SAMANTASAH
19	UNIT NO-24 -COLLEGE CHHAK
20	UNIT NO-25 -JOBRA
21	UNIT NO-26 -SIKHARPUR (P)
22	UNIT NO-27 -GANDARPUR
23	UNIT NO-28 -PAISA
24	UNIT NO-34 -DOLAMUNDAI
25	UNIT NO-36 -RAJABAGICHA
26	UNIT NO-29 -CHAULIAGANJ
27	UNIT NO-30 -ANDARPUR
28	UNIT NO-31 -GUNADALA
29	UNIT NO-32 -MADHUPATNA (P)
30	UNIT NO-33 -BISINABAR
31	UNIT NO-35 -JHANJRMANGLA
32	UNIT NO-37 -BADAMBADI
33	UNIT NO-38 -ARUNDAYANAGAR
34	UNIT NO-39 -SILPAPURI (P)
35	UNIT NO.55, NUAPADA (P)

**ANNEXURE II**  
**NBC 2016 References**

**Part 2 Administration: Clause 12.4.1 (Pg 14, NBC Part 1)**

**12.4 Notice for Alteration Only**

When the notice is only for an alteration of the building (see 3.5), only such plans and statements, as may be necessary, shall accompany the notice.

**12.4.1** No notice and building permit is necessary for the following alterations, and the like which do not otherwise violate any provisions regarding general building requirements, structural stability and fire and health safety requirements of the Code:

- a) Opening and closing of a window or door or ventilator;
- b) Providing intercommunication doors;
- c) Providing partitions;
- d) Providing false ceiling;
- e) Gardening;
- f) White washing;
- g) Painting;
- h) Re-tiling and re-roofing;
- j) Plastering and patch work;
- k) Re-flooring; and
- m) Construction of sunshades on one's own land.

**3.2** The various building uses and occupancies (see 7) permitted on the various zones shall be as given in the Master Plan of the town/city concerned.

### 3.3 Uses to be in Conformity with the Zone

Where the use of buildings or premises is not specifically designated on the Development/Master Plan or in the absence of Development Plan, shall be in conformity with the zone in which they fall.

### 3.4 Uses as Specifically Designated on Development/Master Plan

Where the use of a site is specifically designated on the Development/Master Plan, it shall be used only for the purpose so designated.

### 3.5 Non-Conforming Uses

No plot shall be put to any use, occupancy or premises other than the uses identified in 3.1, except with the prior approval of the Authority.

### 3.6 Fire Safety

Buildings shall be so planned, designed and constructed as to ensure fire safety and this shall be done as per Part 4 'Fire and Life Safety' of the Code.

### 3.7 Transferable Development Rights (TDR)

**3.7.1** Transferable development rights (TDR) is a compensation, in the form of floor area ratio (FAR) or development right, which shall entitle the owner for construction of built-up area, as per applicable regulations, on designated sites. The FAR credit shall be issued, in a certificate called as development right certificate (DRC). The DRC is transferrable in full or part thereof.

#### 3.7.2 Development Right Certificate

The development right certificate (DRC) shall be issued by the local body or the competent authority as per regulations and shall contain the following information:

- Built-up area or FAR credit to which the owner is entitled;
- Place and usage zone from which the DRC is generated (originating plot);
- Place where the FAR credit shall be used (receiving plot); and
- Details of development rights transferred and remaining.

#### 3.7.3 TDR Eligibility

TDR may be granted for,

- Lands earmarked for various public purposes including road widening, which are subjected to acquisition, and are proposed in the plan or regulations prepared under the applicable town planning/municipal or any other legislation;
- Development or construction of the amenity on the reserved land;

- Heritage structure or precinct under the provision of development control regulations or any other applicable regulations;
- In-lieu* of constructing housing for slum dwellers, slum redevelopment, disused mill sites, etc; and
- Purposes as may be notified by the Government as per notification.

### 3.8 Accommodation Reservation (AR)

Accommodation reservation (AR) is a planning tool for development of public amenities reserved in a redevelopment plan wherein local authority is not required to acquire the land by incurring expenditure on payment of compensation. In case of AR, the owner of land earmarked as public amenity, in the redevelopment plan, shall be permitted to develop his land, using full permissible FAR on the plot, subject to handing over the built-up area for the proposed use to the local body/Authority, free of all encumbrances, in lieu of full permissible FAR granted to him. The area utilized for the amenity shall not form part of FAR calculation.

## 4 MEANS OF ACCESS

**4.1** Every building/plot shall abut on a public/private means of access like streets/roads duly formed.

**4.2** Every person who erects a building shall not at any time erect or cause or permit to erect any building which in any way encroaches upon or diminishes the area set apart as means of access required in the Code. No buildings shall be erected so as to deprive any other building of the means of access.

### 4.3 Width of Means of Access

The residential plots shall abut on a public means of access like street/road. Plots which do not abut on a street/road shall abut/front on a means of access, the width and other requirements of which shall be as given in Table 1.

**Table 1 Width and Length of Means of Access**  
(Clause 4.3)

Sl No.	Width of Means of Access	Length of Means of Access Met.
(1)	(2)	(3)
i)	6.0	75
ii)	7.5	150
iii)	9.0	250
iv)	12.0	400
v)	18.0	1000
vi)	24.0	above 1000

NOTE — If the development is only on one side of the means of access, the prescribed widths may be reduced by 1m in each case.



In no case, development on plots shall be permitted unless it is accessible by a public street of width not less than 6 m.

#### 4.3.1 Other Buildings

For all assembly buildings like, theatres, cinema houses, assembly halls, stadia; educational buildings; markets, hospitals; industrial buildings and other buildings which attract large crowd, the means of access shall not be less than the following:

Sl No.	Width of Means of Access m	Length of Means of Access m
i)	12.0	200
ii)	15.0	400
iii)	18.0	600
iv)	24.0	above 600

Further, in no case shall the means of access be lesser in width than the internal accessways in layouts and subdivision.

#### 4.3.2 Footpaths and Pathways

##### 4.3.2.1 Footpaths

**4.3.2.1.1** Footpath should be normally designed for a pedestrian Level of Service (LOS) B, thereby providing wide pedestrian facilities for safe, pleasant and comfortable walking. Under resource constraint, LOS C may be adopted for deciding the width of footpath mentioned in Table 2. The width of footpaths depends upon the expected pedestrian traffic and may be fixed with the help of the following norms subject to not being less than 1.8 m.

**Table 2 Capacity of Footpath and Design**  
(Clause 4.3.2.1.1)

Sl No.	Width of Footpath m	Design Flow in Number of Persons Per Hour			
		In Both Directions		All in One Direction	
		LOS B	LOS C	LOS B	LOS C
(1)	(2)	(3)	(4)	(5)	(6)
i)	1.8	1 350	1 890	2 025	2 835
ii)	2.0	1 800	2 520	2 700	3 780
iii)	2.5	2 250	3 150	3 375	4 725
iv)	3.0	2 700	3 780	4 050	5 670
v)	3.5	3 150	4 410	4 725	6 615
vi)	4.0	3 600	5 040	5 400	7 560

The land use adjacent to roads significantly influences generation of pedestrian traffic. Recommended width of footpath along various land uses are given in Table 3.

**Table 3 Required Width of Footpath as per Adjacent Land Use**  
(Clause 4.3.2.1.1)

Sl No.	Description	Width m
(1)	(2)	(3)
i)	Minimum free walkway width and residential/mixed use areas	1.8
ii)	Commercial/Mixed use areas	2.5
iii)	Shopping frontages	3.5 to 4.5
iv)	Bus stops	3
v)	High intensity commercial areas	4

**4.3.2.1.2** The footpath shall be level, non-slip and continuous, and shall be provided with tactile orientation, kerb and kerb ramp. The footpath shall comply with the requirements given in B-2 other than for width which shall be as per 4.3.2.1.1.

##### 4.3.2.2 Pathways

The approach to the buildings from road/street/internal means of access shall be through paved pathway complying with requirements in B-2. The length of the pathway shall not be more than 30 m. The safety concern of cyclists and pedestrians should be addressed by encouraging the construction of segregated rights of way for bicycles and pedestrians.

**4.3.2.2.1** In the case of special housing schemes for low income group and economically weaker section of society developed up to two storeyed row/cluster housing scheme, the main means of access through pedestrian pathway width shall be 3 m subject to provisions of 9.4.1(a). The pedestrian pathway shall not serve more than 8 plots on each side of the pathway; the length of the pathway shall be not more than 60 m.

**4.3.3** The length of the main means of access shall be determined by the distance from the farthest plot (building) to the public street. The length of the subsidiary accessway shall be measured from the point of its origin to the next wider road on which it meets.

**4.3.4** In the interest of general development of an area, the Authority may require the means of access to be of larger width than that required under 4.3 and 4.3.1.

**4.3.5** In existing built-up areas in the case of plots facing street/means of access less than 4.5 m in width, the plot boundary shall be shifted to be away by 2.25 m from the central line of the street/means of accessway to give rise to a new street/means of accessway of 4.5 m width.

**4.4** The means of access shall be levelled, metalled, flagged, paved, sewered, drained, channelled, lighted,

laid with water supply line and provided with trees for shade to the satisfaction of the Authority free of encroachment by any structure or fixture so as not to reduce its width below the minimum required under 4.3 and shall be maintained in a condition to the satisfaction of the Authority.

**4.4.1** If any private street or any other means of access to a building is not levelled, metalled, flagged or paved, sewered, drained, channelled, lighted or laid with water supply line or provided with trees for shade to the satisfaction of the Authority, who may, with the sanction of the Authority, by written notice require the owner or owners of the several premises fronting or adjoining the said street or other means of access or abutting thereon or to which access is obtained through such street or other means of access or which shall benefit by works executed, to carry out any or more of the aforesaid requirements in such manner as he shall direct.

**4.4.2** If any structure or fixture is set upon a means of access so as to reduce its width below the minimum required, the Authority may remove the same further and recover the expenses so incurred from the owner.

#### **4.5 Access from Highways/Important Roads**

No premises other than highway amenities like petrol pumps, motels, etc., shall have an access direct from highways and such other roads not less than 52 m in width, which the Authority with the approval of the highway authority shall specify from time to time. For all other buildings, the access to the plot from the highway shall be only through a service road/lane as per the stipulation of the highway authority. The Authority shall maintain a register of such roads which shall be open to public inspection at all times during office hours. The portion of such roads on which direct access may be permitted shall be as identified in the Development Plan. However, in the case of existing development on highways/other roads referred to above, the operation of this clause shall be exempted. These provisions shall, however, be subject to the provisions of the relevant State Highway Act, and *The National Highway Act, 1956*.

**4.6** For high rise buildings and special buildings (see Part 4 'Fire and Life Safety' of the Code), the following additional provisions of means of access shall be ensured:

- a) The width of the main street on which the building abuts shall not be less than 12 m and one end of this street shall join another street not less than 12 m in width.
- b) The road shall not terminate in a dead end; except in the case of residential building, up to a height of 30 m

- c) The approach to the building and open spaces on all its sides shall be not less than 6 m in width, and a turning radius of minimum 9 m shall be provided for fire tender movement of fire tenders weighing up to 45 t. The same shall be hard surface capable of taking the mass of fire tender, weighing up to 45 t minimum. For heavier fire tenders, the minimum width, turning radius and the hard surface capable of taking the fire tender loads shall be as per the requirement laid down by the Fire Department. The layout for the open space for fire tender movement shall be done in consultation with the Chief Fire Officer of the city, which shall be kept free of obstructions and shall be motorable. The compulsory open spaces around the building shall not be used for parking.
- d) The main entrance to the plot shall be of adequate width to allow easy access to the fire engine and in no case shall it measure less than 6 m. The entrance gate shall fold back against the compound wall of the premises, thus leaving the exterior accessway within the plot free for movement of fire tender. If the main entrance at the boundary wall is built over, the minimum clearance shall be 4.5 m.

#### **4.6.1 Buildings on Podium**

**4.6.1.1** Podium is a horizontal projection (platform) extending beyond the building footprint on one or more sides, and may consist of one or more levels (see Fig. 8A).

##### **4.6.1.2 Uses permitted**

Podium may be used for the following purposes:

- a) *Parking of vehicles* — When used for parking, one WC, two urinals and two washbasins for every 500 cars or part thereof, shall be provided on each podium floor. At least one accessible toilet complying with the requirements given in B-9 shall be provided preferably near the accessible parking.  
Provision for driver's rest room for non-residential building shall be made.
- b) Fire and building services/utilities in accordance with the provisions of other Parts/Sections of the Code.
- c) Topmost podium slab which is open to sky maybe landscaped and/or be used as recreational open space; subject to provision of 1.6 m high parapet wall.
- d) Other habitable uses may be allowed by counting it in FAR subject to light, ventilation



Uses proposed in (a) to (c), shall not be counted towards FAR.

#### 4.6.1.3 Requirements

Following requirements shall be satisfied for buildings constructed on podium:

- a) A podium may be permitted in a plot of area 1 500 m<sup>2</sup> or more.
- b) A podium, if provided with ramp, may be permitted in one or more levels, however the total height shall not exceed 30.0 m above ground level.
- c) In case a podium is not provided with ramp, but provided with car lift only, the same may also be permitted in one or more levels, however, the total height shall not exceed 9.0 m above ground level.
- d) Requirements for ramp for vehicles (see Fig. 8B):
  - 1) One way ramp of clear width of minimum 3.0 m and two way ramp with clear width of minimum 6.0 m shall be provided for LMV.
  - 2) One way ramp of clear width of minimum 4.5 m and two way ramp with clear width of minimum 9.0 m shall be provided for LCV.
  - 3) One way ramp of clear width of minimum 6.0 m and two way ramp with clear width of minimum 12.0 m shall be provided for HMV.
  - 4) Ramp slope shall be maximum 1 in 8.
  - 5) After a 40 m length of continuous ramp, a flat surface of minimum 6.0 m length shall preferably be provided (see Fig. 8B).
  - 6) If podium is accessible to fire tender, minimum 7.5 m wide ramp shall be required for fire engine access with maximum slope of 1 in 10.
- e) Podium shall not be permitted in required minimum front open space.
- f) Podium, if accessible to fire tender, shall be so designed so as to take the load of fire tender weighing up to 45 t minimum or as per the requirement laid down by the Fire Department.
- g) Requirement of accessibility for elders and persons with disabilities shall be ensured in compliance with the provisions of Annex B which may require providing ramps with specified gradient or accessible lifts for access to different levels.

#### 4.6.1.4 Requirements for fire tender movement

- a) Buildings having height more than 15 m above ground level shall necessarily be accessible by fire tender, as follows (see Fig. 9A):

- 1) For buildings having floor area less than 10 000 m<sup>2</sup>, fire tenders shall have access to at least one-third of the perimeter of building which shall be minimum 6.0 m wide and having 9.0 m turning radius.
- 2) For buildings having floor area more than 10 000 m<sup>2</sup>, fire engine shall have an access to at least to half of the perimeter of building which shall be minimum 6.0 m wide and having 9.0 m turning radius.
- b) If podium is not accessible by fire tender, the podium may be such that it is not extended beyond the building footprint to an extent more than 11.0 m on the side where fire tender access is provided (see Fig. 9B and Fig. 9C). Such restriction shall not apply in case podium is accessible by fire engine (see Fig. 9D).
- c) Minimum 6.0 m driveway width and 9.0 m width at turning shall be available for fire tender movement all around the podium.

NOTE — The width and turning radius of ramp for fire tender access, and requirements of motorable open space for fire tender movement given above pertain to fire tender weighing up to 45 t and its operability. For heavier fire tenders, these shall be as per the requirement laid down by the Fire Department [see also 4.6 (c)].

**4.7 Cul-de-sacs** giving access to plots and extending from 150 m to 275 m in length with an additional turning space at 150 m will be allowed only in residential areas, provided *cul-de-sacs* would be permissible only on straight roads and further provided the end of *cul-de-sacs* shall be higher in level than the level of the starting point of such dead end road. The turning space, in this case shall be not less than 81 m<sup>2</sup> in area, with no dimension less than 9 m.

#### 4.8 Intersection of Roads

For intersection junctions of roads meeting at right angles as well as other than right angles, the rounding off or cut off or splay or similar treatment shall be done, to the approval of the Authority, depending upon the width of roads, the traffic generated, the sighting angle, etc, to provide clear sight distance.

**4.9** The building line shall be set back at least 3 m from internal means of access in a layout of buildings in a plot subject to provisions of 8.2.1.

### 5 COMMUNITY OPEN SPACES AND AMENITIES

#### 5.1 Residential and Commercial Zones

In any layout or sub-division of land measuring 0.3 ha or more in residential and commercial zones, the community open spaces shall be reserved for recreational purposes which shall as far as possible

### ANNEXURE III STANDARDS FOR FIRE PROTECTION AND FIRE SAFETY REQUIREMENTS

(Extract taken from National Building Code of India – For the complete provision, refer Part-IV of NBCI) (See clause (v) of sub-regulation (3) of regulation 5, regulation 57 and clause (viii) of regulation 44)

- (1) **Scope:** The Part-4 of NBCI covers the requirements for fire prevention, life safety in relation to fire and fire protection of buildings. This Part of NBCI specifies occupancy-wise classification, constructional aspects, egress requirements and protection features that are necessary to minimize danger to life and property from fire. Lifts escalators and revolving doors shall not be considered as exits.
- (2) The provisions of this Part are applicable to the followings unless otherwise mentioned specifically in the provisions:—
  - (i) all high rise buildings; and
  - (ii) special buildings, those are,
    - (a) hotel, educational, institutional, business, mercantile, industrial, storage, hazardous and mixed occupancies, where any of these buildings have floor area more than 500 square meters on any one or more floors;
    - (b) educational buildings having height 9000 m. and above;
    - (c) institutional buildings having height 9.00 m. and above;
    - (d) all assembly buildings;
    - (e) buildings, having area more than 300 square meters of incidental assembly occupancy on any floor; and
    - (f) buildings with two basements or more, or with one basement of area more than 500 square meter.
- (3) The extract of the provisions related to life-safety of Part-IV of NBCI in relation to general exit requirements, occupant load and egress components, are given in the subsequent part of this annexure:—



## **4 LIFE SAFETY**

### **4.1 General**

Every building shall be so designed, constructed, equipped, maintained and operated as to provide adequate means of egress to avoid undue danger to the life and safety of the occupants from fire, smoke, fumes or panic during the time period necessary for escape.

For high occupancy areas, it may be required to have annunciation, announcements and voice guided/aided system to direct the occupants towards safe egress routes, areas of comparative safety or exits, and to avoid situation of panic during distress.

Every main occupancy may have certain occupancies which may be incidental to the main occupancy. The exit requirements pertaining to such incidental occupancies from the floor of the occupancy to the level of exit discharge shall be calculated to meet the requirement of the actual occupancy of such type, to ensure adequate means of egress of the occupants.

See also 13 of Part 3 'Development Control Rules and General Building Requirements' of the Code for accessibility for elderly and persons with disabilities, for various requirements for enabling a smooth and safe egress.

### **4.2 General Exit Requirements**

**4.2.1** An exit may be a fire exit doorway; an internal staircase, exit passageway, external doorway, external staircase and these having access to the street or to a *Veranda* or to a refuge area or to the terrace or roof of a building. An exit may also include a horizontal exit leading to an adjoining building/fire compartment having its further access to unlocked/public exit at the same level.

**4.2.2** Unless otherwise specified, lifts, escalators, moving walks and revolving doors shall not be considered as exits and shall not constitute any part of the required exit.

**4.2.3** Every exit, exit passageway and exit discharge shall be continuously maintained free of all obstructions or impediments to full use in the case of fire or other emergency.

**4.2.4** Every building having human occupancy shall be provided with exits sufficient to permit safe egress of occupants, in case of fire or other emergency.

**4.2.5** In every building or structure, exits shall comply with the minimum requirements of this Part, except those not accessible for general public use.

**4.2.6** No building shall be so altered as to reduce the number, width or protection of exits to less than that required.

**4.2.7** For non-naturally ventilated areas, fire doors with 120 min fire resistance rating shall be provided and particularly at the entrance to lift lobby and stair well where a 'funnel or flue effect' may be created, inducing an upward spread of fire, to prevent spread of fire and smoke.

**4.2.8** Exits shall be so arranged that they may be reached without passing through another occupied unit/passageway in others control, if they pose challenge or restriction in means of egress.

**4.2.9** Doors in exits shall open in the direction of exit. In case of assembly buildings (Group D) and institutional buildings (Group C-1), exit door shall not open immediately upon a flight of stair and all such entries to the stair shall be through a landing, so that such doors do not impede movement of people descending from a higher floor when fully opened (see Fig. 4A). While for other occupancies, such doors shall not reduce the pathway in the landing by more than half the width of such staircase (see Fig. 4B). Overhead or sliding doors shall not be installed.

**4.2.10** At least half of the required exit stairs from upper floors (rounded to the next higher number) shall discharge directly to the exterior or through exit passageways.

**4.2.11** Unless otherwise specified, all the exits and exit passageways to exit discharge shall have a clear ceiling height of at least 2.4 m. However, the height of exit door shall be at least 2.0 m (see Fig. 5).

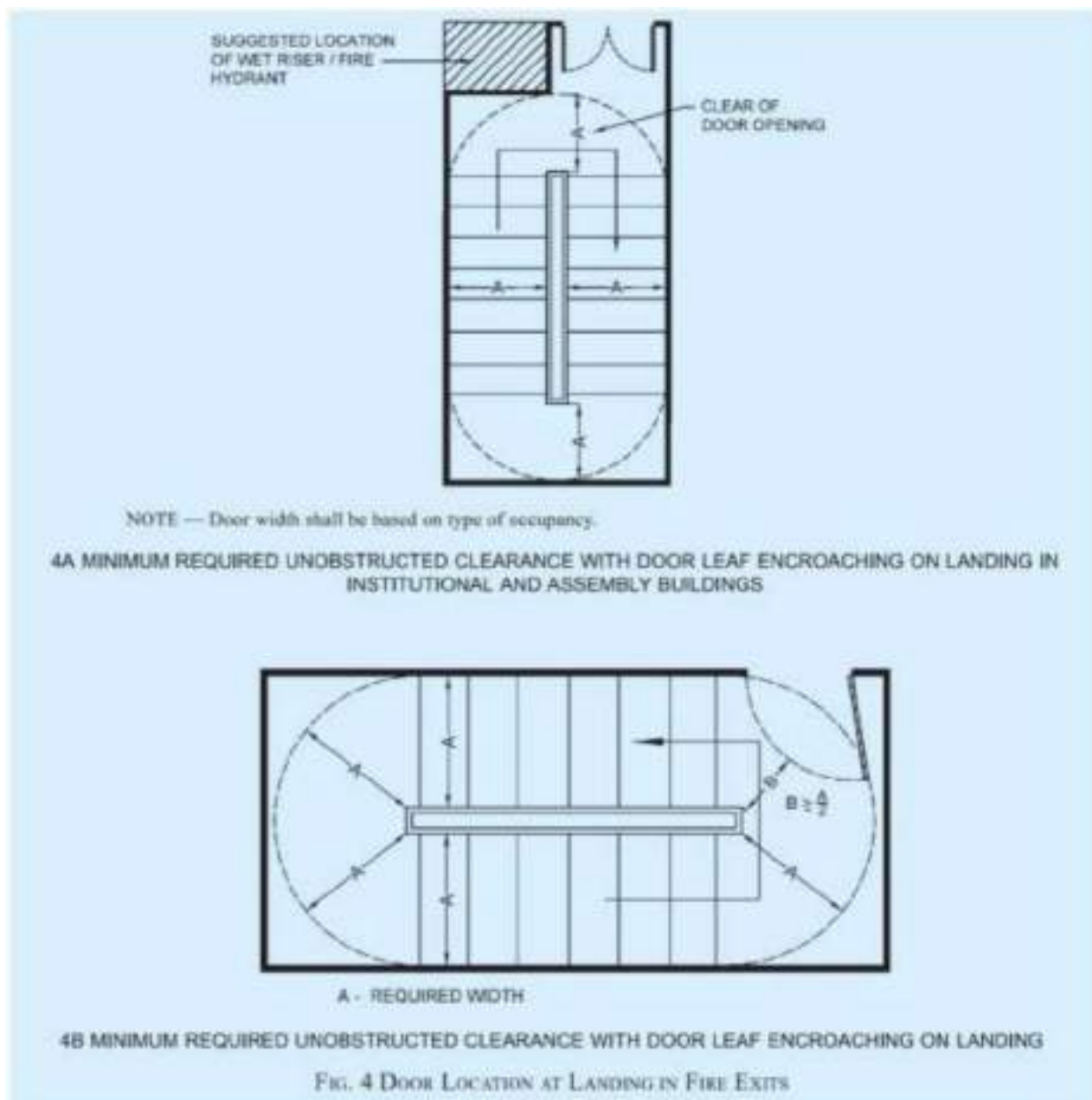
**4.2.12** Where changes in elevation of more than 300 mm are encountered in the exits, ramps or sloped surfaces shall be used with handrails and floor finish materials that contrast with the adjacent finish materials.

**4.2.13** The capacity of the means of egress required from any storey of the building shall not be reduced along the path of egress travel until arrival to the exit discharge.

**4.2.14** The lifts, escalators, moving walks, turnstiles and revolving doors shall not be considered in determining the required capacity of means of egress for the individual floor(s) or the building.

**4.2.15** Turnstiles or similar devices that restrict travel to one direction or that are used to restrict unauthorized entry shall not be so placed as to obstruct any required means of egress. Alternative door openings of required exit width shall be available within 3 m of such devices, if installed.

**4.2.16** Suitable means shall be provided so that all access controlled exit doors, turnstiles, boom barriers and other such exits shall automatically operate to open mode during emergencies like fire, smoke, acts of



terrorism, etc, so that people can safely and quickly egress into safe areas outside. If required, a master controlling device may be installed at a strategic location to achieve this.

**4.2.17** Penetrations into and openings through an exit are prohibited except those necessary like for the fire protection piping, ducts for pressurization and similar life safety services. Such openings as well as vertical passage of shaft through floors shall be protected by passive systems.

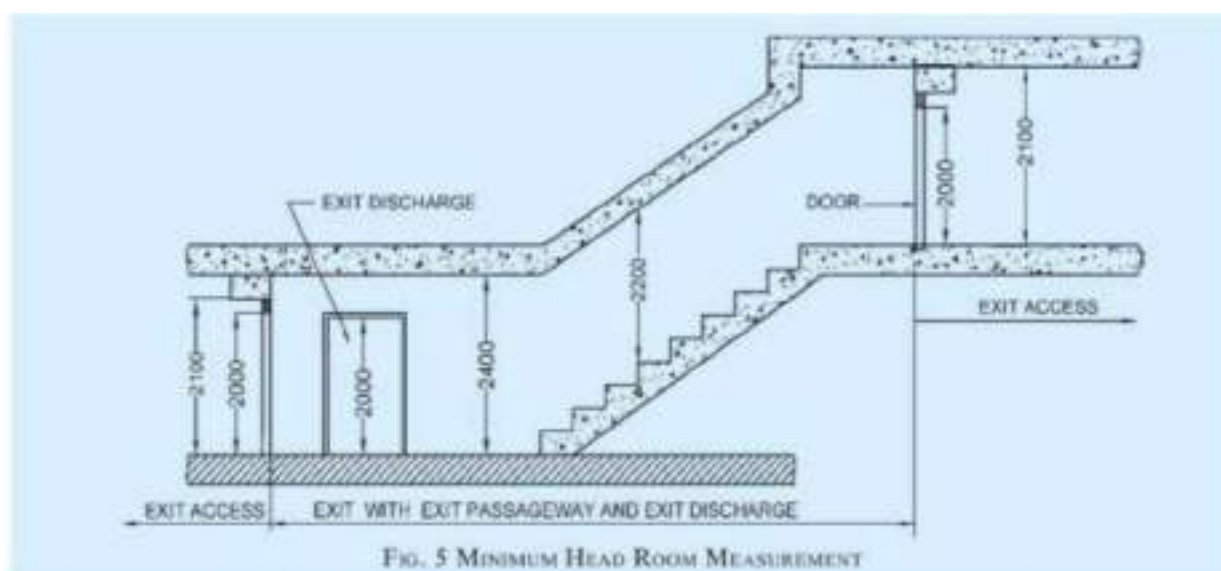
**4.2.18** Walking surfaces in exit access shall comply with the following requirements for smooth exit:

- Walking surfaces shall be nominally level.
- The slope of walking surface in the direction of travel shall not exceed 1 in 20 unless the ramp requirements are met (see 4.4.2.4.3.5).

- Slope perpendicular to the direction of travel shall not exceed 1 in 48.
- Walking surfaces shall be slip-resistant along the entire path of travel.

#### **4.2.19 Basement**

- Basement exits shall be sufficient to provide for the capacity of the basement as determined in accordance with 4.4.2.1. In no case shall there be less than two independent basement exits.
- Basements having incidental occupancies to main occupancy shall be planned with exit requirements of the basements for the actual occupancy within the basement.
- Where basement is used for car parking and also there is direct approach from any



occupancy above to the basement, door openings leading to the basement shall need to be protected with fire doors with 120 min fire rating, except for exit discharge doors from the basements.

### 4.3 Occupant Load

For determining the exits required, the number of

persons within any floor area or the occupant load shall be based on the actual number of occupants declared, but in no case less than that specified in Table 3. The occupant load of a mezzanine floor discharging to a floor below shall be added to that floor occupancy and the capacity of the exits shall be designed for the total occupancy load thus established.

The occupant load of each story considered individually

**Table 3 Occupant Load**  
(Clauses 4.3 and 4.4.2.1)

Sl No.	Group of Occupancy	Occupant Load Factor (m <sup>2</sup> /person) (see Note 1)
(1)	(2)	(3)
i)	Group A: Residential	12.50
ii)	Group B: Educational	4.00
iii)	Group C: Institutional (see Note 2):	
	a) Indoor patients area	15.00
	b) Outdoor patients area	10.0
iv)	Group D: Assembly:	
	a) Concentrated use without fixed seating	0.65
	b) Less concentrated use without fixed seating (see Note 3)	1.40
	c) Fixed seating	see Note 4
	d) Dining areas and restaurants with seating and table	1.80
v)	Group F: Mercantile:	
	a) Street floor and sales basement	3.00
	b) Upper sales floor	6.00
	c) Storage/warehouse, receiving and the like	20.00
vi)	Group E: Business	10.00
vii)	Group G: Industrial	10.00
viii)	Group H: Storage (see Note 5)	30.00
ix)	Group J: Hazardous	10.00

#### NOTES

1 Gross area shall be the floor area as defined in 2.35. All factors expressed are in gross area unless marked net.

2 Occupant load in dormitory portions of homes for the aged, orphanages, insane asylums, etc, where sleeping accommodation is provided, shall be calculated at not less than 7.5 m<sup>2</sup> gross floor area/person.

3 These shall include gymnasium, table tennis room, billiard room and other gaming rooms, library, swimming pool and like.

4 In case of assembly occupancy having fixed seats, the occupant load shall be determined by multiplying the number of seats by 1.2.

5 Car parking areas under occupancy other than storage shall also be 30 m<sup>2</sup> per person.

shall be required to be used in computing the number of means of egress at each story, provided that the required number of means of egress is not decreased in the direction of egress travel.

The assembly occupancies and call centres shall be required to display, limiting occupant load details positioned in a conspicuous place near the entrance of each of such respective occupancy to avoid possible overcrowding and overloading. The display shall preferably be engraved on a metal plate of not less than 300 mm × 200 mm, with letters of height and width not less than 50 mm, with detail of occupancy, area and occupancy load (see figure below).

The capacity of any open mezzanine/balcony shall be added to the capacity of the floor below for the purpose of determining exit capacity.

**MAXIMUM OCCUPANCY**

**\_\_\_\_ PERSONS PERMITTED  
WITHIN THIS SPACE/ROOM**

IT IS CONFIRMED THAT THE FIRE EXITS  
ARE PLANNED FOR EGRESS OF THE  
OCCUPANCY AS MENTIONED ABOVE AND  
OCCUPANCY MORE THAN THE ABOVE IS  
NOT PERMITTED IN THE SPACE/ROOM AS  
FOLLOWS:

SPACE/ROOM DETAIL: \_\_\_\_\_

FLOOR NO. \_\_\_\_\_

SIGN: \_\_\_\_\_ DATE: \_\_\_\_\_

(MANAGER/AUTHORIZED SIGNATORY)

## 4.4 Egress Components

Egress components to be considered are the number of exits to which access is provided, capacity of exit access, travel distance to an exit, the obviousness of the direction to an exit, and any hindrance including due to security issues involved.

### 4.4.1 Exit Access

- a) A common path of travel is desirable in exit access which leads to two independent directions to separate exits.
- b) *Capacity of exit access* — The width of corridors, aisles or ramps required for exit access shall be sufficient to ensure a smooth flow of occupants to the exit. Where a corridor is the only way of access to an exit, the corridor

width shall not be less than the calculated exit width.

- c) Objects like tables, chairs or any other temporary/permanent structures in exit access corridors shall be avoided as this may result in congestion and also impeding smooth flow of personnel during emergencies.
- d) In order to ensure that each element of the means of egress can be effectively utilized, they shall all be properly lit and marked. Lighting shall be provided with emergency power back-up in case of power failures. Also, exit signs of adequate size, marking, location, and lighting shall be provided so that all those unfamiliar with the location of the exits may safely find their way.
- e) Exit access to fireman's lift and refuge area on the floor shall be step free and clearly signposted with the international symbol of accessibility.
- f) Exit access shall not pass through storage rooms, closets or spaces used for similar purpose.
- g) The calculation of capacity of exit access shall be in accordance with 4.4.2.4.

### 4.4.2 Exits

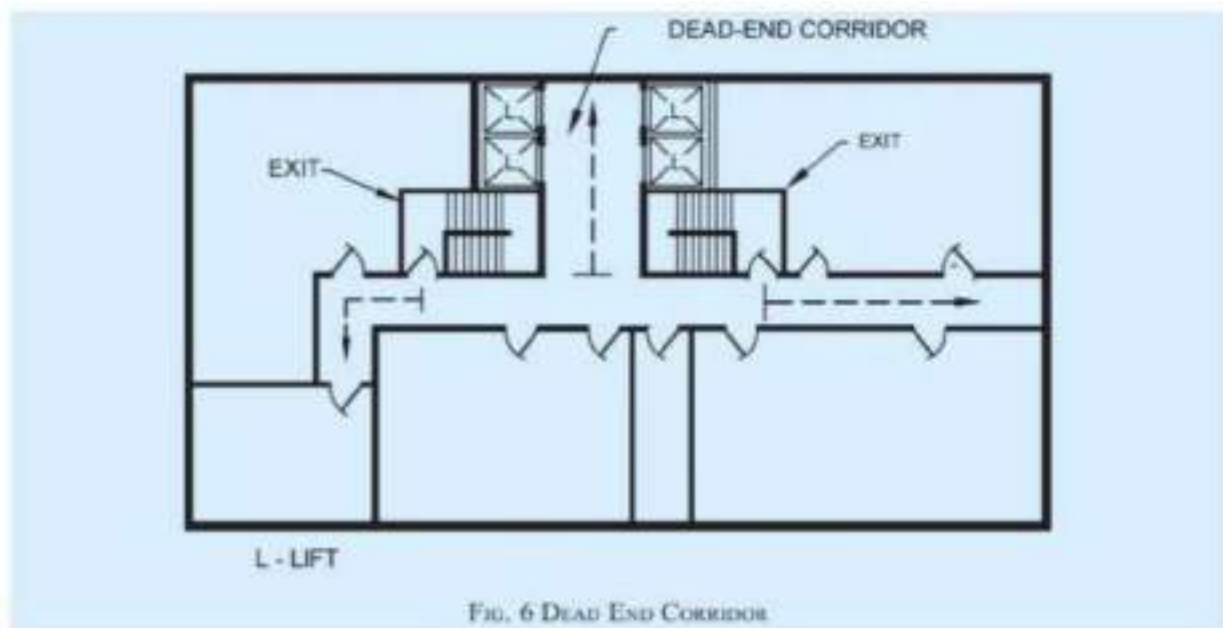
#### 4.4.2.1 Number of exits

The minimum required number of exits in a building shall be determined based on occupant load (see Table 3) and width required per person (see Table 4) as appropriate to the type of exit for respective occupancies, subject to complying with maximum travel distance requirement (see Table 5).

#### 4.4.2.2 Arrangement of exits

- a) Exits shall be so located that the travel distance on the floor shall not exceed the distance given in Table 5.
- b) Travel distance shall be measured from the most remote point within a storey or a mezzanine floor along the natural and unobstructed path of horizontal or vertical egress travel to the door to an exit.
- c) The dead end corridor length in exit access shall not exceed 6 m for educational, institutional and assembly occupancies. For other occupancies, the same shall be 15 m (see Fig. 6)
- d) Exits shall be placed as remote from each other as possible and shall be arranged to provide direct access in separate directions from any point in the area served.





#### 4.4.2.3 Capacities of means of egress

- Exit capacity is the number of people that can pass through a stairway, and level components (door and corridor) and ramps. The total capacity of all the respective means of egress serving a floor shall be sufficient to allow egress of the entire population of the floor.
- The unit of exit width, used to measure the capacity of any exit, shall be 500 mm. A clear width of 250 mm shall be counted as an additional half unit. Clear widths less than 250 mm shall not be counted for exit width.
- Width per person for stairways, and level components and ramps shall be determined using the capacity factors in accordance with Table 4.

**Table 4 Capacity Factors**  
[Clauses 4.4.2.1, 4.4.2.3(c) and 4.4.2.4.2(a)]

Sl No.	Occupancy Group	Width per Person mm	
		Stairways	Level Components and Ramps
(1)	(2)	(3)	(4)
i)	Residential (Group A)	10	6.5
ii)	Educational (Group B)		13
iii)	Institutional (Group C)		
iv)	Assembly (Group D)	10	
v)	Business (Group E)	6.5	10
vi)	Mercantile (Group F)		
vii)	Industrial (Group G)		
viii)	Storage (Group H)	18	10
ix)	Hazardous (Group J)		

For example, if an exit doorway measures 1 000 mm in clear width, it would be defined as providing exit capacity for  $1\,000/6.5$  occupants, that is, 153 persons (say 150 persons) and number of such exit doorways can then be calculated depending on the occupant load.

- When calculating stairways, level components and ramps and other exit means, the capacity of the entire system shall have to be based upon the minimum capacity available from any part of the system. The corridor, if so provided shall also to be planned with consideration of exit access adequacy for the number of occupants. Further, consider the situation of doors opening to an exit stairway. If the stairway provides an exit capacity of 150 persons, and the doors leading into the stairway provide an exit capacity of 153 persons, the overall exit system would be considered to provide the minimum exit capacity of only 150 persons afforded by the stairway. The exit planning will be limited by the most restrictive exit calculation under the means of egress.
- In the procedures for determining required egress capacity, the number of required means of egress is based on a floor-by-floor consideration, rather than the accumulation of the occupant loads of all the floors. However, the number of means of egress cannot decrease as an occupant proceeds along the egress path.

#### 4.4.2.4 Types of exit access and exits

Various types of exit access and exits are doorways, corridors and passageways, horizontal exits, internal

**Table 5 Travel Distance (Based on Occupancy and Construction Type)**  
(Clauses 4.4.2.1 and 4.4.2.2)

Sl No.	Occupancy Group	Maximum Travel Distance m	
		Types 1 and 2	Types 3 and 4
(1)	(2)	(3)	(4)
i)	Residential (Group A)	30.00	22.50
ii)	Educational (Group B)	30.00	22.50
iii)	Institutional (Group C)	30.00	22.50
iv)	Assembly (Group D)	30.00	30.00
v)	Business (Group E)	30.00	30.00
vi)	Mercantile (Group F)	30.00	30.00
vii)	Industrial (Group G)	G-1, G-2	See Note 3
		G-3	
		45.00	
viii)	Storage (Group H)	22.50	
ix)	Hazardous (Group J)	30.00	
		22.50	

**NOTES**

1 For fully sprinklered building, the travel distance may be increased by 50 percent of the values specified.

2 Ramp shall not be counted as an exit in case of basements below the first basement in car parking.

3 Construction of Type 3 or Type 4 is not permitted.

staircases, exit passageways, external staircases and ramps.

Requirements for each are as detailed below.

**4.4.2.4.1 Doorways**

- Every exit doorway shall open into an enclosed stairway or a horizontal exit of a corridor or passageway providing continuous and protected means of egress (see Fig. 7 on unaccepted arrangement of doors in a stair).
- No exit doorway shall be less than 1 000 mm in width except assembly buildings, where door width shall be not less than 2 000 mm (see Fig. 8). Doorways shall be not less than 2 000 mm in height.
- Exit doorways shall be operable from the side which they serve, without the use of a key.
- Mirrors shall not be placed on exit doors and in exits to avoid confusion regarding the direction of exit.
- Revolving doors can be accepted as a component in a means of egress where the following requirements are fully complied with:
  - Doors shall be capable of collapsing to a book fold position with parallel egress paths, of width not less than 1 000 mm.
  - Doors shall not be located within 3 m of the foot or top of stairs or escalators. A dispersal area shall be provided between the stairs or escalators and the doors.

- Each revolving door shall be provided with a hinged door in the same wall within 3 m thereof, with same exiting capacity.
- Each revolving door shall be considered as capable of exiting only 50 persons.

- All fire rated doors and assembly shall be provided with certificate and labels prominently indicating the manufacturer's identification, door details covering door type, serial/batch number, month and year of manufacture, fire resistance rating, etc. The doors and assembly shall be certified with all prescribed hardware such as hinges, locks, panic bars, door closer, and door viewers.

- Access controlled doors** — Access controlled doors and electromagnetic doors shall fall under this category. These shall meet the following requirements:

- Doors shall have fire rating as per the requirements at the location of installation.
- Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the doors in the direction of egress, and the doors shall remain unlocked until the automatic sprinkler system or fire-alarm system has been manually reset.
- Loss of power to the part of the access control system that locks the doors shall automatically unlock the doors in the direction of egress.
- A manual release device shall be provided in the readily accessible vicinity of the egress door with a signage 'PUSH TO EXIT' and when the same is operated, it shall result in direct interruption of power to the lock, independent of the access control system electronics.

- Turnstiles** — Turnstiles or similar devices that restrict travel to one direction or are used to collect fares or admission charges shall not be placed so as to obstruct any required means of egress unless door openings of required width are available within 3 m thereof.

Turnstiles or such similar devices shall also be disengaged through automatic or manual intervention to allow egress in the direction of exit.

- Doors in folding partition shall not be treated as approved means of egress.

**4.4.2.4.2 Corridors and passageways of means of egress**

- Corridors and passageways shall be of width not less than the calculated aggregate width

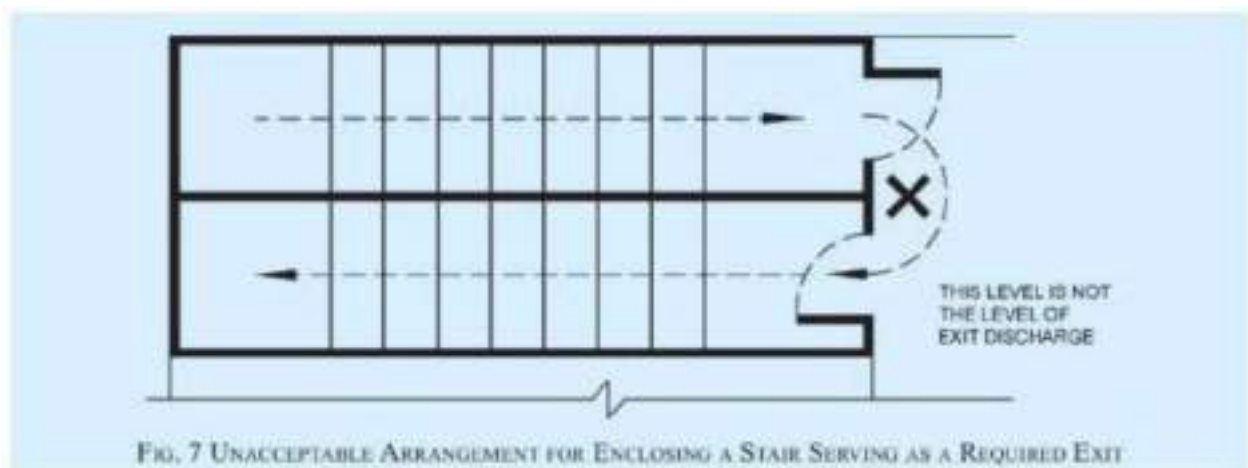


FIG. 7 UNACCEPTABLE ARRANGEMENT FOR ENCLOSING A STAIR SERVING AS A REQUIRED EXIT

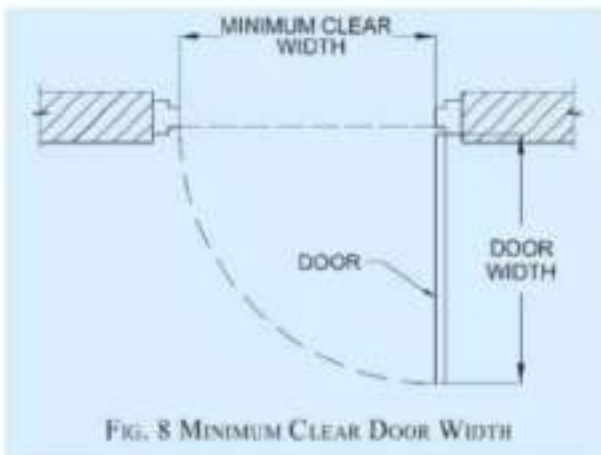


FIG. 8 MINIMUM CLEAR DOOR WIDTH

of exit doorways leading from them in the direction of travel to the exit (see Table 4 and Table 5).

- b) In the case of buildings where there is a central corridor, which is part of exit access, the doors of rooms (except for rooms having assembly occupancy) shall open inwards to permit smooth flow of traffic in the corridor.

#### 4.4.2.4.3 Staircases

##### 4.4.2.4.3.1 General

The requirements of number of staircases shall supplement the requirement of different occupancies in 6.1 to 6.9.

All buildings, as mentioned in 1.2, shall have a minimum of two staircases. The actual number of staircases shall comply with the requirement of 4.4.2.1.

All exit staircases shall discharge, at the level of exit discharge, to the exit discharge, either,

- a) directly, or
- b) through an exit passageway, or
- c) through a large lobby.

At least 50 percent of the staircases shall discharge as per (a) and/or (b) above.

The minimum width of tread without nosing shall be 250 mm for staircase of residential buildings. This shall be minimum 300 mm for assembly, hotels, educational, institutional, business and other buildings. The treads shall be constructed and maintained in a manner to prevent slipping. The maximum height of riser shall be 190 mm for staircase of residential buildings (A-2) and 150 mm for other buildings. The number of risers shall be limited to 12 per flight.

The staircases may be internal staircases or external staircases.

##### 4.4.2.4.3.2 Internal staircases

The internal staircases may be constructed with an external wall, or otherwise, and shall comply with the following:

- a) Internal stairs shall be constructed of non-combustible materials throughout, and shall have fire resistant rating of minimum 120 min.
- b) A staircase shall not be arranged round a lift shaft.
- c) Exits shall not be used as a portion of a supply, return or exhaust air system serving adjoining areas. Any opening(s) shall not be permitted in walls or in doors, separating exits from adjoining areas.
- d) No flue chimney, electromechanical equipment, air conditioning units, gas piping or electrical panels shall be allowed in the stairway.
- e) Notwithstanding the detailed provision for exits in accordance with 4.2 and 4.3, the following minimum width shall be provided for staircases for respective occupancies:

- 1) Residential (A-2) : 1.00 m

NOTE — For row housing with 2 storeys, the minimum width shall be 0.75 m.

- 2) Residential (A-1, A-3 and A-4) : 1.25 m



3) Residential hotel (A-5 and A-6) : 1.50 m

4) Assembly : 2.00 m

NOTE — The width of stairs may be accepted to be 1.50 m in case of assembly occupancy having less than 150 persons.

5) Educational : 1.50 m

6) Institutional : 2.00 m

7) All other occupancies : 1.50 m

f) A handrail shall be provided on one side of the staircase of width less than 1 500 mm, and on both sides of the staircase of width 1 500 mm and more. The projection of handrail(s) in the staircase width shall not be more than 115 mm. All other requirements of handrail shall be in accordance with Part 3 'Development Control Rules and General Building Requirements' of the Code.

g) Handrails may project inside the measured width by not more than 90 mm.

h) The design of staircase shall also take into account the following:

1) The minimum headroom in a passage under the landing of a staircase and under the staircase shall be 2.2 m

2) Access to exit staircase shall be through a fire door of a minimum 120 min fire resistance rating.

3) No living space, store or other fire risk shall open directly into staircases.

4) The exit (including staircases) shall be continuous from refuge floors or terrace level, as applicable, to the level of exit discharge.

5) No electrical shafts/air conditioning ducts or gas pipes, etc., shall pass through or open in the staircases.

6) Lifts shall not open in staircase.

7) No combustible material shall be used for decoration/wall panelling in the staircase.

8) Beams/columns and other building features shall not reduce the head room/width of the staircase.

9) The floor indication board, indicating the location/designated number of staircase, respective floor number and direction to exit discharge shall be placed inside the staircase, on the wall nearest to the fire door. It shall be of size not less than 300 mm × 200 mm (see Fig. 9).

10) Individual floors shall be prominently indicated on the wall outside the staircase and facing it.

11) All staircase shall terminate at the level of exit discharge. The access to the basement shall be by a separate staircase.

12) Scissors type staircases shall not be treated as part of exit.

#### 4.4.2.4.3.3 Curved stairs

Curved stairs shall not be treated as part means of egress. However, these may be used as part of exit access provided the depth of tread is not less than 280 mm at a point 350 mm from the narrower end of the tread and the smallest radius is not less than twice the stair width.

#### 4.4.2.4.3.4 External staircases

The external staircases are the staircases provided on the external wall/facade, and shall comply with the following:

a) External stairs shall always be kept in sound and usable condition.

b) All external stairs shall be directly connected to the ground.

c) Entrance to the external stairs shall be separate and remote from the internal staircase.

d) Where an external staircase is provided, it shall be ensured that the use of it at the time of fire is not prejudiced by smoke and flame from openings (for example, windows, doors) in the external face of the building. Care shall be taken to ensure that no external wall or window opening opens on to or close to an external stair. If such openings exists within 3 m from an external staircase, they shall be protected with fire rated doors/window assemblies with rating of at least 60 min (see Fig. 10).

e) The external stairs shall be constructed of non-combustible materials, and any doorway leading to it shall have minimum 120 min fire resistance.

f) No external staircase, shall be inclined at an angle greater than 45° from the horizontal.

g) External stairs shall have straight flight not less than 1 500 mm wide.

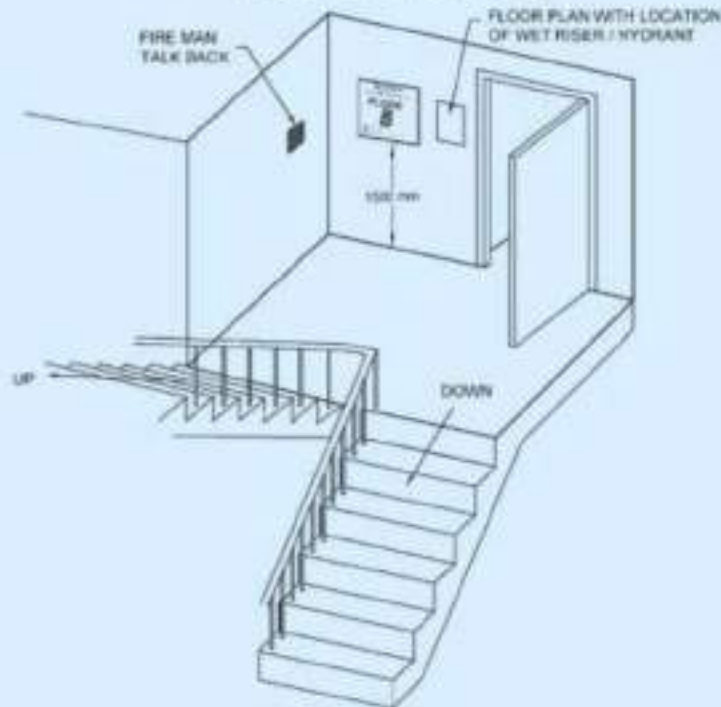
h) Handrails, to be provided on both sides, shall be of a height not less than 1 000 mm and not exceeding 1 200 mm. There shall be provisions of balusters with maximum gap of 150 mm.

j) The use of spiral staircase shall be limited to low occupant load and to a building not exceeding 9 m in height. A spiral staircase shall be not less than 1 500 mm in diameter and shall be designed to give adequate headroom.





9A EXAMPLE OF A STAIRWAY MARKING SIGN  
[FLOOR INDICATION BOARD]



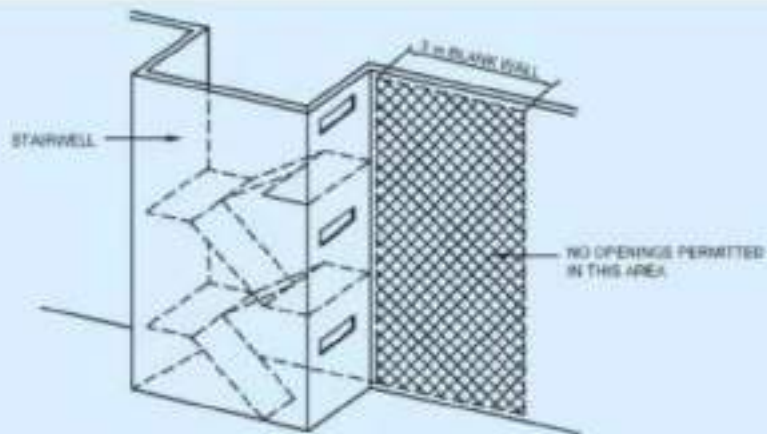
9B STAIR SIGN PLACEMENT

NOTE — Block/Wing/Building name are to be project specific. Staircase shown as '3' is intending to show the number assigned to the staircase. All exits preferably to be assigned with number/identification enabling occupants/fire man to declare location/position.

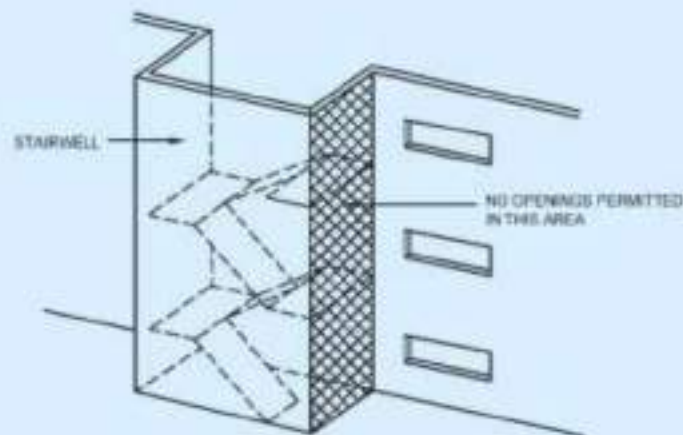
FIG. 9 SIGN MARKING AND REQUIREMENT IN EXIT

#### 4.4.2.4.3.5 Ramps

- a) Ramps shall comply with all the applicable requirements for staircases regarding enclosure, capacity (*see also* Table 4) and limiting dimensions, except where specified in 6.1 to 6.9 for special uses and occupancies.
- b) The slope of a ramp shall not exceed 1 in 12 (8 percent).
- c) Ramp(s) shall be surfaced with approved slip resistant materials that are securely attached. No perforations are permissible on ramp floors.
- d) Any changes in travel direction in ramp shall be preceded by landings of 1.5 m × 1.5 m size.
- e) Ramps and intermediate landings shall continue with no decrease in width along the direction of egress travel.
- f) Outside ramps and landings shall be designed to minimise water accumulation on their surfaces.
- g) Ramps shall have landings located at the top, at the bottom, and at doors opening onto the ramp.
- h) Every landing shall be not less than 1 500 mm long in the direction of travel.
- j) Where the ramp is not part of an accessible route, the ramp landings shall not be required to exceed 1 250 mm in the direction of travel, provided that the ramp has a straight run.



10A LIMITATIONS OF OPENINGS NEAR STAIRWELL



10B OPENING RESTRICTIONS ON STAIRWELL WALLS

FIG. 10 OPENING RESTRICTIONS

- k) Handrails shall be provided on all ramps on both sides (see 4.4.2.4.3.4).

NOTE — Above requirements are not applicable to basement car parking ramps

The ramps shall, in addition, comply with the requirements given in 13 of Part 3 'Development Control Rules and General Building Requirements' of the Code.

#### 4.4.2.5 Smoke control of exits

- a) In building design, compartmentation plays a vital part in limiting the spread of fire and smoke. The design should ensure avoidance of spread of smoke to adjacent spaces through the various leakage openings in the compartment enclosure, such as cracks, openings around pipes ducts, airflow grills and doors. In the absence of proper sealing of all these openings, smoke and toxic gases will obstruct the free movement of occupants of the building through the exits. Pressurization of staircases is of great importance for the

exclusion of smoke and toxic gases from the protected exit.

- b) Pressurization is a method adopted for protecting the exits from ingress of smoke, especially in high-rise buildings. In pressurization, air is injected into the staircases, lobbies, etc, as applicable, to raise their pressure slightly above the pressure in adjacent parts of the building. As a result, ingress of smoke or toxic gases into the exits will be prevented. The pressurization of staircases and lift lobbies shall be adopted as given in Table 6.

The pressure difference for staircases shall be 50 Pa.

Pressure differences for lobbies (or corridors) shall be between 25 Pa and 30 Pa. Further, the pressure differential for enclosed staircase adjacent to such lobby (or corridors) shall be 50 Pa. For enclosed staircases adjacent to non-pressurized lobby (or corridors), the pressure differential shall be 50 Pa.

**Table 6 Pressurization of Staircases and Lift Lobbies**  
[Clauses 4.4.2.5 (b) and E-2]

Sl No.	Component	Height of Building		
		Less than 15 m (3)	15 m to 30 m (4)	More than 30 m (5)
i)	Internal staircase not with external wall	Pressurized except for residential buildings (A-2 and A-4)	Pressurized	Pressurized
ii)	Internal staircase with external wall	Pressurized except for residential buildings (A-2 and A-4) or Naturally ventilated	Naturally ventilated or Pressurized	Cross-ventilated or Pressurized
iii)	Lift lobby	Not required at ground and above. However lift lobby segregation and pressurization is required for lift commuting from ground to basement	Naturally ventilated or Pressurized <sup>1)</sup>	Cross-ventilated or Pressurized <sup>1)</sup>

**NOTES:**

1 The natural ventilation requirement of the staircase shall be, achieved through opening at each landing, of an area 0.5 m<sup>2</sup> in the external wall. A cross ventilated staircase shall have 2 such openings in opposite/adjacent walls or the same shall be cross-ventilated through the corridor.

2 Enclosed staircase leading to more than one basement shall be pressurized.

<sup>1)</sup> Lift lobby with fire doors (120 min) at all levels with pressurization of 25-30 Pa is required. However, if lift lobby cannot be provided at any of the levels in air conditioned buildings or in internal spaces where funnel/flue effect may be created, lift hoistway shall be pressurized at 50 Pa. For building greater than 30 m, multiple point injection air inlets to maintain desired pressurization level shall be provided. If the lift lobby, lift and staircase are part of firefighting shaft, lift lobby necessarily has to be pressurized in such case, unless naturally ventilated.

- c) Equipment and ductwork for staircase pressurization shall be in accordance with one of the following:
  - 1) Directly connected to the stairway by ductwork enclosed in non-combustible construction.
  - 2) If ducts used to pressurize the system are passed through shafts and grills are provided at each level, it shall be ensured that hot gases and smoke from the building cannot ingress into the staircases under any circumstances.
- d) The normal air conditioning system and the pressurization system shall be designed and interfaced to meet the requirements of emergency services. When the emergency pressurization is brought into action, the following changes in the normal air conditioning system shall be effected:
  - 1) Any re-circulation of air shall be stopped and all exhaust air vented to atmosphere.
  - 2) Any air supply to the spaces/areas other than exits shall be stopped.
  - 3) The exhaust system may be continued provided,
    - i) the positions of the extraction grills permit a general air flow away from the means of egress;
    - ii) the construction of the ductwork and fans is such that, it will not be rendered inoperable by hot gases and smoke; and
    - iii) there is no danger of spread of smoke to other floors by the path of the extraction system which can be ensured by keeping the extraction fans running.
- e) For pressurized stair enclosure systems, the activation of the systems shall be initiated by signalling from fire alarm panel.
- f) Pressurization system shall be integrated and supervised with the automatic/manual fire alarm system for actuation.
- g) Wherever pressurized staircase is to be connected to unpressurized area, the two areas shall be segregated by 120 min fire resistant wall.
- h) Fresh air intake for pressurization shall be away (at least 4 m) from any of the exhaust outlets/grille.

## ANNEXURE IV GENERAL BUILDING REQUIREMENTS

### 1. Doorways:

- (i) Every doorway shall open into an enclosed stairway, a horizontal exit, on a corridor or passageway providing continuous and protected means of egress.
- (ii) No exit doorway shall be less than 1 meter in width. Doorways shall be not less than 2 meter in height. Doorways for bathrooms, water closet and stores shall be not less than 0.75 meter wide.
- (iii) Exit doorways shall open outwards, that is, away from the room but shall not obstruct the travel along any exit. No door, when opened, shall reduce the require width of stairway or landing to less than 0.9 meter, overhead or sliding doors shall not be installed.
- (iv) Exit door shall not open immediately upon a flight or stairs, a landing equal to at least the width of the door shall be provided in the stairway at each doorway, level of landing shall be the same as that of the floor which it serves.
- (v) Exit doorways shall be openable from the side which they serve without the use of a key.
- (vi) Mirrors shall not be placed in exit ways or exit doors to avoid confusion regarding the direction of exit.
- (vii) Revolving doors shall not be provided as a means of fire exit

### 2. Stairways:

- (i) A staircase shall not be arranged round a lift shaft.
- (ii) The natural ventilation requirement of the staircase shall be, achieved through opening at each landing, of an area 0.5 square meters in the external wall. A cross ventilated staircase shall have 2 (two) such openings in opposite/adjacent walls or the same shall be cross ventilated through the corridor. The National Building Code of India, Chapter 4 Fire and Life Safety, Clause 4.4.2.5 Smoke Control of exits shall be followed for requirement of Pressurized staircase in various building components.
- (iii) The minimum width of staircase shall be as in Table-1 herein contained—

**Table 1: Type of Building and Staircase Width**

Sl.No.	Type of Building	Width (m)
(a)	(b)	(c)
1	Residential buildings (dwellings)	1.00
2	Residential Hotel Buildings	1.50
3	Assembly buildings e.g., auditorium, theatres and cinemas	2.00
4	Educational buildings up to 30 meter in height	1.50
5	Institutional buildings like hospitals	2.00
6	All other buildings	1.50

- (iv) The minimum width of treads without nosing shall be 0.25 meter for staircase of residential buildings. In the case of other buildings, the minimum tread shall be 0.30 meter. The treads shall be constructed and maintained in a manner to prevent slipping. The maximum height of riser shall be 0.19 meter in the case of residential buildings and 0.15 meter in the case of other buildings and the number of riser

shall be limited to 12 per flight.

- (v) Handrails shall be provided with a minimum height of 0.9 meter from the center of the tread.
- (vi) Handrail shall be provided on both sides of the staircase if the width of staircase is 1.50 meter or more.
- (vii) The minimum headroom in a passage under the landing of a staircase and under the staircase shall be 2.20 meter.
- (viii) Access to exit staircase shall be through a fire door of a minimum 120 minute fire resistance rating. It shall be a swing type door opening in the direction of the escape.
- (ix) No living space, store or other fire risk shall open directly into staircases.
- (x) External exit door of staircase enclosure at ground level shall open directly to the open spaces or can be reached without passing through any door other than a door provided to form a draught lobby.
- (xi) The exit sign with arrow indicating the way to the escape route shall be provided at a height of 0.5 meter from the floor level on the wall and shall be illuminated by electric light connected to corridor circuits. All exit way marking signs shall be flushed with the wall and so designed that no mechanical damage shall occur to them due to moving of furniture or other heavy equipment's. Further all landings of floor shall have floor indication boards indicating the number of floor. The floor indication board shall be placed on the wall immediately facing the flight of stairs and nearest to the landing. It shall be of size not less than 0.50 meter × 0.50 meter and it shall be prominently on the wall facing the staircase.
- (xii) In case of single staircase, it shall terminate at the ground floor level and the access to the basement shall be by a separate staircase. The second staircase may lead to basement levels provided the same is separated at ground level by either a ventilated lobby with discharge points at two different ends or through enclosures with fire resistance rating door (Table-1, Part IV of the National Building Code of India revised time to time) or through a fire protected corridor.

**3. Lifts:** General requirements of lifts shall be as follows:

- (i) All the floors shall be accessible for 24 hours by the lifts. The lifts provided in the buildings shall not be considered as a means of escape in case of emergency. In a dual line arrangement (lifts opposite to each other) the lobby may be between 1.5 times to 2.5 times the depth of one car. For in-line (single line) arrangements the lobby may be typically half of the above recommendations.
- (ii) Grounding switch, at ground floor level, to enable the fire service to ground the lift shall also be provided.
- (iii) The lift machine room shall be separate and no other machinery shall be installed there in.
- (iv) Walls of lift enclosures and lift lobby shall have fire rating of 2 hour; (National Building Code of India); lifts shall have a vent at the top of area not less than 0.2 square meter.
- (v) Lift car door shall have a fire resistance rating of 1 hour.
- (vi) Lift lobby doors in lift enclosures shall have fire resistance as per relevant provision of the National Building Code of India.
- (vii) Collapsible gates shall not be permitted for lifts and shall have solid doors with fire resistance of at least 1 hour.
- (viii) Lifts if communicating with the basement, the lift lobby of the basements shall be pressurized as suggested in Annexure-III (Fire Protection and Fire Safety Requirements) with self-closing door with



fire resistance rating. Telephone or other communication facilities shall be provided in lift cars and to be connected to fire control room for the building.

- (ix) Suitable arrangements such as providing slope in the floor of lift lobby shall be made to prevent water used during firefighting etc., at any landing from entering the lift shafts.
- (x) A sign shall be posted and maintained on every floor at or near the lift indicating that in case of fire, occupants shall use the stairs unless instructed otherwise. The sign shall also contain a plan for each floor showing the locations of the stairways. Alternate source of power supply shall be provided for all the lifts through a manually operated changeover switch.
- (xi) The National Building Code of India, Chapter 4 Fire and Life Safety, Clause 4.4.2.5 Smoke Control of exits may be followed for requirement of Pressurized lifts in various building components.

#### 4. Ramps:

- (i) In the case of parking spaces provided in basement(s) and upper storey of parking floors, at least two ramps of width and slope as per Table 2 shall be provided, located preferably at opposite ends.

**Table 13 Requirements for ramp for vehicles**

SI No.	Type of Vehicle	One way ramp width (in meters)	Two way ramp width (in meters)	Maximum continuous ramp length (in meters)	Minimum width of ramp landing (in meters)	Maximum slope of ramp (in meters)
(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	LMV	3.00	6.00	40.00	6.00	1:80
2	LCV	4.50	9.00			
3	HMV	6.00	12.00			
4	fire tender	7.50		40.00	6.00	1:10

**Note.—**

1. Such ramps may be permitted in the side and rear setbacks after leaving 6 meters space for movement of fire-fighting vehicles;
2. The parking of vehicles at different level may also be mechanized.
3. In case of underground/multistoried parking, special measures with regard to fire safety shall be taken in compliance to Part 4-Fire and Life Safety of NBCI.

- (ii) Ramp may also be provided in setback area which can be sloped considering unhindered movement of fire Engine and in no case the gradient shall be less than 1:10.
- (iii) All structural design/safety aspects shall be complied per latest BIS Codes and National Building Code of India along with consideration of weight of Fire Engine and its maneuverings.
- (iv) The minimum width of the ramps in hospitals shall be 2.40 meters for stretcher and not for vehicular movement.
- (v) In this case Handrails shall be provided on both sides of the ramp.
- (vi) Ramps shall lead directly to outside open space at ground level or courtyards or safe place.
- (vii) Requirement of accessibility for elders and persons with disabilities shall be ensured in compliance with the provisions of Annexure-VIII which may require providing ramps with specified gradient or accessible lifts for access to different levels.

## 5. Corridors:

- (i) Exit corridors and passageways shall be of width not less than the aggregate required width of exit doorways leading from them in the direction of travel to the exterior.
- (ii) The minimum width of a corridor in a residential building shall be 1.0 meter for single loaded and 1.80 meters for double loaded and in all other buildings shall be 1.50 meters.
- (iii) In Hospitals, the corridors through which patients are moved, shall have a minimum width of 2.40 m throughout and corridors in other areas of hospital not intended for the housing, treatment, or use of inpatients shall be not less than 1.50 m in width.
- (iv) Where stairways discharge through corridors and passageways, the height of corridors and passageways shall be not less than 2.40 meters.
- (v) All means of exit including staircases lifts lobbies and corridors shall be ventilated.

## 6. Glass Facade/ Service Ducts/Shafts/ Refuge Area/ Vents

- (i) An Opening to the glass facade of min. width 1.5 meters and height 1.50 meters shall be provided at every floor at a level of 1.20 meters from the flooring facing compulsory open space as well as on road side. Construction that complies with the fire rating of the horizontal segregation and has any gap packed with a non- combustible material to withstand thermal expansion and structural movement of the walling without the loss of seal against fire and smoke.
- (ii) Mechanism of Opening: The openable glass panel shall be either left or right shall have manual opening mechanism from inside as well as outside. Such openable panels shall be marked conspicuously so as to easily identify the openable panel from outside.
- (iii) Fire seal to be provided at every floor level between the external glazing and building structure.
- (iv) The glazing used for the facade shall be of toughened (tempered) safety glass as per I.S. 2553.
- (v) To avoid fire propagation vertically from one floor to another floor, a continuous glass must be separated internally by a smoke/ fire seal which is of non-combustible material having a fire resistance rating of not less than 2 hours.
- (vi) Service ducts and shafts shall be enclosed by walls and doors with fire resistance rating. All such ducts or shafts shall be properly sealed and stopped fire ingress at all floor levels.
- (vii) A vent opening at the top of the service shaft shall be provided having an area between one- fourth and one-half of the area of the shaft.
- (viii) Glass quality and Practice of use of Glass in buildings shall have to be in conformity with the BIS codes as given in Table 3 herein contained.

**Table 3: Glass quality and Use of glass in buildings**

Sl. No.	IS Code	Specifications
(a)	(b)	(c)
1	2553 (Part 1): 1990	Specification for safety glass: Part 1 General purpose (third revision)
2	2835:1987	Specification for flat transparent sheet glass (third revision)
3	438:1994	Specification for silvered glass mirrors for general purposes (second revision)
4	5437:1994	Specification for figured rolled and wired glass (first revision).

Sl. No.	IS Code	Specifications
(a)	(b)	(c)
5	14900:2000	Specification for transparent float glass.
6	16231 Part 1	General methodology for selection
7	16231 Part 2	Energy and Light
8	16231 Part 3	Fire and Loading
9	16231 Part 4	Safety related to Human Impact

## 7. Building Services

### (i) Staircase and Corridor Lighting

- (a) The staircase and corridor lighting shall be on separate service and shall be independently connected so as it could be operated by one switch installation on the ground floor, easily accessible to firefighting staff at any time irrespective of the position of the individual control of the light points, if any.
- (b) Staircase and corridor lighting shall also be connected to alternate supply from parallel high-tension supply or to the supply from the stand-by generator.
- (c) Emergency lights shall be provided in staircase and corridor or passageway, horizontal exits, refuge area; and all wires and other accessories used for emergency light shall have fire retardant property.

### (ii) Electrical Services

- (a) The electric distribution cables or wiring shall be laid in separate duct which shall be sealed at every floor with non-combustible materials having the same fire resistance as that of the duct. Low and medium voltage wiring running in shaft and in false ceiling shall run in separate conduits.
- (b) Water mains, telephone cables, intercom cables, gas pipes or any other service line shall not be laid in the duct for electric cables. Use of bus ducts/solid rising mains instead of cables is preferred.
- (c) The provision of dedicated telecommunication ducts for all new building proposals is mandatory for conveyance of telecommunication and other data cables.
- (d) Separate circuits for water pumps lifts, staircases and corridor lighting and blowers for pressurizing system shall be provided directly from the main switchgear panel.

### (iii) Alternate Source of Electric Supply: A stand-by electric generator shall be installed to supply power to staircase and corridor lighting circuits, fire lifts, the stand-by fire pumps, pressurization fans and blowers, smoke extraction and damper system in case of failure of normal electric supply. The generator shall be capable of taking starting current of all the machines and circuits stated above simultaneously. If the stand-by pump is driven by diesel engine, the generator supply need not be connected to the stand-by pump.

### (iv) Air-conditioning: Air-conditioning shall conform to the following:

- (a) Escape routes like staircases, common corridors, lift lobbies. shall not be used as return air passage.
- (b) The ducting shall be constructed of substantial gauge metal in accordance with good practice.



- (c) Wherever the ducts pass through fire walls or floors, the opening around the ducts shall be sealed with materials having fire resistance rating of the compartment.
- (d) Where duct crosses a compartment which is fire rated, the ducts shall be fire rated for same fire rating. Further depending on services passing around the duct work, which may get affected in case of fire temperature rising, the ducts shall be insulated.
- (e) Metallic ducts shall be used even for the return air instead of space above the false ceiling.
- (f) Where plenum is used for return air passage, ceiling and its fixtures shall be of non-combustible material.
- (g) The materials used for insulating the duct system (inside or outside) shall be of non-combustible material; glass wool shall not be wrapped or secured by any material of combustible nature.
- (h) Air ducts serving main floor areas, corridors, shall not pass through the staircase enclosure.
- (i) The air-handling units shall be separate for each floor and air ducts for every floor shall be separated and in no way inter-connected with the ducting of any other floor.
- (v) If the air-handling unit serves more than one floor, the recommendations given in clause (iv) shall be compiled with, in addition to the conditions given below:
  - (a) Proper arrangements by way of automatic fire dampers working on smoke detector / or fusible link for isolating all ducting at every floor from the main riser shall be made.
  - (b) When the automatic fire alarm operates, the respective air-handling units of the air-conditioning system shall automatically be switched off.
  - (c) The vertical shaft for treated fresh air shall be of masonry construction.
  - (d) The air filters of the air-handling units shall be of non-combustible materials or fire rated.
  - (e) The air-handling unit room shall not be used for storage of any combustible materials.
  - (f) Inspection panels shall be provided in the main trunking to facilitate the cleaning of ducts of accumulated dust and to obtain access for maintenance of fire dampers.
  - (g) No combustible material shall be fixed nearer than 150 mm to any duct unless such duct is properly enclosed and protected with non-combustible material (glass wool or spyglass with neoprene facing enclosed and wrapped with aluminum sheeting) at least 3.2 mm thick and which would not readily conduct heat.
- (vi) Transformers:
  - (a) When transformers are housed in the building below the ground level it shall be necessarily in the first basement in separate fire resistance room of 4 hours rating. Transformer shall be dry type and shall be kept in an enclosure with walls, doors and cut-outs having fire resistance rating of 4 hour. The room shall necessarily be at the periphery of the basement having separate and direct access from open area at ground floor through a fire escape staircase. The entrance to the room shall be provided with a steel door of 2 hours fire rating. A curb of a suitable height shall be provided at the entrance in order to prevent the flow of oil from ruptured, transformer into other parts of the basement. The switchgears shall be housed in a separate room separated from the transformer bays by a fire- resisting wall with fire resistance not less than 4 hours.
  - (b) The transformer shall be protected by an automatic foam sprinkler system. When housed at ground floor level it/they shall be cut-off from the other portion of premises by Fire Resisting Walls of 4 hours rating.

- (c) A tank of RCC construction of adequate capacity shall be provided at lower basement level to collect the oil from the catch pit in case of emergency. The pipe connecting the catch-pit to the tank shall be of non- combustible construction and shall be provided with a flame-arrester.
- (d) The electric sub-station shall be located in a separate building in accordance with sub-regulation (1) of regulation 68 and clause (a) of sub-regulation (1) of regulation 64 of the Indian Electricity Regulations, 1956.
- (e) In case this is not practically possible due to site conditions, the sub- station shall be located on the ground floor. As far as possible sub-station shall not be installed in a basement, for such situations special provisions like mechanical ventilation, wherever required, cable ducting, cable trays, top/bottom entry of HV/LV cable, hooks on Transformer(s) and HV panels, adequate fire detection and fire-fighting arrangement, adequate drainage, effective measures to prevent flooding shall be provided. Adequate precautions shall also be taken for water proofing to prevent seepage of water. A ramp shall also be provided with a slope, not steeper than 1 in 7, for easy movement of equipment to and from sub-station.
- (vii) Fire regulations—The installations shall be carried out in conformity with the local regulations and regulations made thereunder wherever they are in force. At other places the National Building Code of India shall be followed.
- (viii) Gas supply:
  - (a) Town Gas / L.P. Gas Supply Pipes - Where gas pipes are run in buildings, the same shall be run in separate shafts exclusively for this purpose and these shall be on external walls away from the staircases. There shall be no interconnection of this shaft with the rest of the floors.
  - (b) LPG distribution pipes shall always be below the false ceiling. The length of these pipes shall be as short as possible. In the case of kitchen cooking range area, apart from providing hood, covering the entire cooking range, the exhaust system shall have to be designed to take care of 30 cubic meter per minute per square meter of hood protected area. It must have grease filters using metallic grill to trip oil vapours escaping into the fume hood.
  - (c) For large/commercial kitchens all wiring in fume hoods shall be of fiberglass insulation. Thermal detectors shall be installed into fume hoods of large kitchens for hotels, hospitals and similar areas located in high rise buildings. Arrangements shall be made for automatic tripping of the exhaust fan in case of fire.
  - (d) When LPG is used, the same shall be shut off. The voltage shall be of 24 V or 100 V DC operated with the external rectifier. The valve shall be of the hand re-set type and shall be located in an area segregated from cooking ranges. Valves shall be easily accessible. The hood shall have manual facility for steam or carbon dioxide gas injection, depending on duty condition; and Gas meters shall be housed in a suitably constructed metal cupboard located in a well-ventilated space, keeping in view the fact that LPG is heavier than air and town gas is lighter than air.
- (ix) Boiler Room: Further, the following additional aspects may be taken into account in the location of Boiler/Boiler Room:
  - (a) The boiler shall not be allowed in sub-basement but be allowed in the first basements away from the escape routes.
  - (b) The boilers shall be installed in a fire resisting room of 4 hours fire resistance rating, and this room shall be situated on the periphery of the basement. Catch pit shall be provided at the low level. Entry to this room may be provided with a composite door of two hour fire resistance.
  - (c) The boiler room shall be provided with fresh air inlets and smoke exhausts directly to the atmosphere.

- (d) Foam inlets shall be provided on the external walls of the building at the ground floor level to enable the fire services to use foam in case of fire.
- (e) The furnace oil tank for the boiler, if located in the adjoining room shall be separated by fire resisting wall of 4 hour rating. Entry to this room shall be provided with a composite door of 2 hour fire resistance. A curb of suitable height shall be provided at the entrance in order to prevent the flow of oil into the boiler room in case of tank rupture.